



# SILLIMAN JOURNAL

VOLUME 61 NUMBER 1 | JANUARY TO JUNE 2020

A JOURNAL DEVOTED TO DISCUSSION  
AND INVESTIGATION IN THE HUMANITIES AND SCIENCES

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## **IN THIS ISSUE**

Annie Melinda Paz-Alberto

Angel C. Alcala

Cynthia V. Almazan

Giselle Ann A. Alvarez

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Chris Bird

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JANUARY TO JUNE 2020

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## Editorial Notes

*"The earth will not continue to offer its harvest,  
except with faithful stewardship. We cannot  
say we love the land and then take steps to  
destroy it for use by future generations."*

**- Pope John Paul II**

On behalf of the Editorial Team, I am pleased to present this first issue of Silliman Journal 2020. Contained in this issue are articles from diverse fields – from the sciences, humanities, and social sciences. What seems to be the thread that binds them together is the theme on stewardship.

The first article is a collaborative study on Mottled Rabbitfish or what is known locally as danggit by National Scientist Dr. Angel C. Alcala and his team composed of Abner Bucol, Lily Bucol, Lilibeth A. Bucol, Edwin F. Romano, Zoe Ruben, Micah Bachner, Giselle Ann A. Alvarez, Chris Bird, Beth A. Polidoro, and Kent E. Carpenter. The study examines not only the status of this species as a popular fish product in Negros Oriental but also its threats, particularly microplastics and overfishing.

The next article is by Cynthia V. Almazan and Annie Melinda Paz-Alberto. It assesses the conservation programs implemented in the aquatic ecosystems traversing Pampanga River by looking into how these programs protect the environment, change people's social behavior, promote economic benefits, and inspire policy formulation.

In the third article, Nina Arra DJ. Rivera and Annie Melinda Paz-Alberto assess the diversity of fauna in Mt. Tapulao, Palauig, Zambales.



Their evaluation focused on identifying and determining the conservation status, endemism, and population trends of animals in the area.

The fourth article surveys the birds of five small islands in Palawan. Using a combination of methods, Lisa J. Paguntalan, Philip Godfrey Jakosalem, Bernard Bonares, and Maria Feliza Janet Oquendo record bird species found in these areas.

The fifth article is a study conducted in Malaysia. Megawati Soekarno and Sue-hi Ting write about the impact of a 13-week training course on culinary students' communication strategy use.

The last full-length article is by artist Niccolo R. Vitug who writes about making space for contributions and critique of the Tiempos and the Silliman University National Writers Workshop (SUNWW). In this paper, Niccolo re-examines Conchitina Cruz's "The (Mis)education of the Filipino Writer: The Tiempo Age and Institutionalized Creative Writing" and explains gaps left by the paper.

Aside from these five full-length papers, two articles are included in the Notes Section of this issue. The first one, written by Jan Antoni A. Credo, attempts three questions on governance in the Philippine context; hence, it is a brief note on local governance and politics. The second note is by writer Karlo Antonio G. David who sees the need to examine Mindanao's Tagalog creolized languages.

The cover art, "Dharma Mandala: Nucleus of the Mystic Sea," is by international artist Elle Divine. The painting is part of Ocean Dharma, her third solo exhibition. She writes, "Our lives wheel around the infinite Circle – floating in the cradle of the mystic sea."

**Warlito S. Caturay Jr., PhD**

*Editor*

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# **Microplastics in the Mottled Rabbitfish (*Siganus fuscescens*) in Negros Oriental, Philippines with Notes on the Siganid Fishery**

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We reviewed the status of the Mottled Rabbitfish (*Siganus fuscescens* Houttuyn, 1782) as a major fishery product in Negros Oriental, including threats from microplastic pollution and overfishing. This species is often marketed as either fresh or dried “danggit”. Out of a total of 300 fish samples from four areas in Negros Oriental province, 91 (30%) of *S. fuscescens* ingested microplastics; the highest ingestion (39%) was observed in Dumaguete, a densely populated city. We also assessed the reproductive biology parameters of this species and compared them with the data gathered in 1979, roughly 40 years ago. The samples from Bais and Dumaguete had reduced sizes at sexual maturity and fecundity, suggesting negative effects from prolonged overexploitation. We therefore urge more studies on other parts of Negros Island and even elsewhere in the country, to determine the potential health hazards from microplastic pollution and the current threat to the sustainability of the siganid or “danggit” fishery.

**Keywords:** fecundity, fishery, microplastics, overfishing

## INTRODUCTION

Rabbitfishes (Family *Siganidae*) are a popular and heavily consumed coastal food fish in the Philippines. Based on the 2017 fisheries profile of the Philippines, the country produced 194.31 tonnes of siganids per year, excluding unreported catch by local traditional gears. Fulton et al. (2020) pointed out an increasing trend in landings of siganids in the Philippines and Indonesia. This may be attributed to an increasing number of algal farms which have been reported as food sources of this fish species in these two countries.

In many parts of the Philippines, the most conspicuous species landed and often sold as fresh or as dried boneless “danggit” is *Siganus fuscescens*. This species is fast-growing, becoming sexually mature at around two years (Grandcourt et al., 2007). The fries and adults of this species often aggregate in schools of up to several thousands. As the fish matures, the number of individuals per school is reduced to about 60 individuals (Woodland, 1990). Diet of juveniles consists of filamentous algae, while adults feed on selected fleshy macroalgae (Woodland, 1990; Froese & Pauly, 2019). The species’ availability in coastal areas throughout the year, its relatively small home adult range, and its benthic feeding habits make it a good marine organism as an indicator of coastal pollution.

The *Siganus fuscescens* species complex consists of two similar species (*S. fuscescens* and *S. canaliculatus*) that differ subtly in spotting pattern (Woodland, 1990). Hsu et al. (2011) pointed out those specimens that were distinguishable morphologically as either *S. fuscescens* or *S. canaliculatus* were inconsistent in terms of their mitochondrial DNA and that both species should be regarded as synonyms. In this regard, following Ravago-Gotanco et al. (2018), we use the scientific name *S. fuscescens* (Houttuyn, 1782) to include *S. canaliculatus* (Park, 1797) which has been used by earlier studies (e.g., Alcala & Alcazar, 1979; Paraboles & Campos, 2018).

Globally, there is an emerging problem in marine plastic pollution (Walker, 2018). The Philippines ranks third among countries in terms of plastic pollution (Jambeck et al., 2015). Abreo et al. (2016) documented that large marine vertebrates such as turtles and whales ingested plastic debris. Many studies have shown that microplastics (i.e., plastic particles <5mm) are found in the aquatic environment (Deocaris et al., 2019; Pan et al., 2019). In the

Philippines, studies have shown that microplastics are present in beaches and benthic sediments (e.g., Kalnasa et al., 2019; Paler et al., 2019) and in edible mollusks (Argamino & Janairo, 2016). Espiritu et al. (2019) demonstrated the presence of microplastics in commercial fishes in Luzon. Bucol et al. (2020) documented the presence of microplastic particles in both marine sediments and the commercially important fish, *S. fuscescens*, along the coast of Negros Oriental in Central Visayas.

In Negros Oriental province, Bais Bay has been a major fishing ground for siganids since the 1970s (see Alcala, 1979). At present, there are at least 246 fishermen who use gears that frequently catch this species. Alcala and Alcazar (1979) studied aspects of the reproductive biology of the rabbitfish *Siganus canaliculatus*, now known as *Siganus fuscescens*, in Negros Oriental. Later, Silliman University researchers assessed the fishery profile of Bais Bay, including a stock assessment of *S. fuscescens* (Luchavez & Abrenica 1997a, 1997b). The present study includes an update on the fishery of *S. fuscescens*, using these two earlier studies as baseline.

Given the importance of this species to fisheries and coastal marine ecosystems, our objective was to document the potential impact of two of the most pressing threats (e.g., fisheries and plastic pollution) on regional populations, by documenting observed changes in sexual maturity and fecundity that were likely linked to overexploitation, as well as the presence and type of ingested microplastics that were likely linked to locally-sourced plastic pollution. As this species is of critical importance to the local human communities that rely on them for food, results aim to provide a deeper understanding of the potential impacts of overexploitation and plastic pollution on locally-caught marine fishes and human health, as well as to recommend additional studies and guidance for improved fisheries management and plastic pollution reduction policies in Negros Oriental.

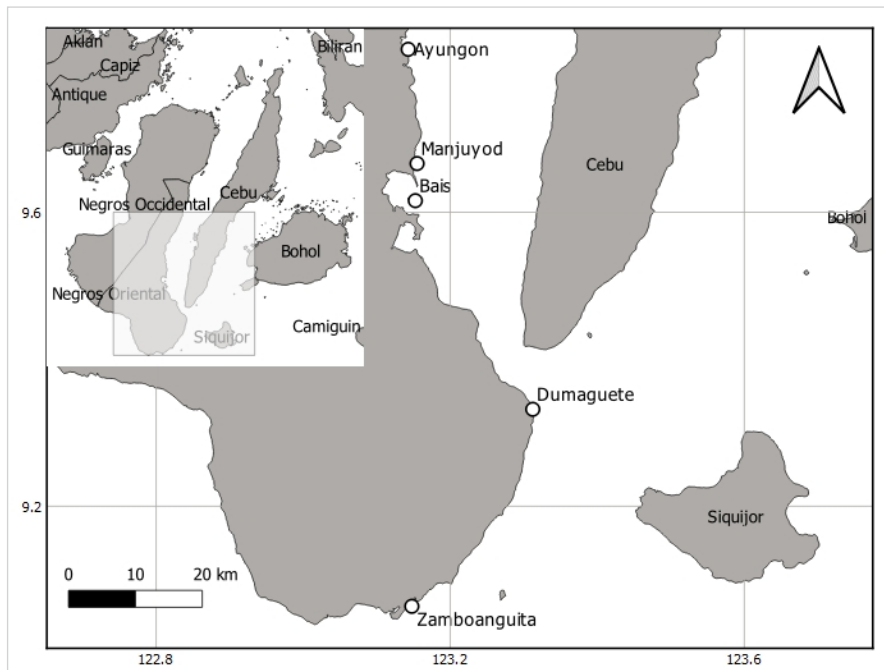
## MATERIALS AND METHODS

### Sample Collection

Samples of *S. fuscescens* were directly purchased from either local fishers from landings or fish markets that only sold locally caught fish (< 5 km radius) in the following localities (arranged from North to South): 1) Tiguib,

Ayungon; 2) Campuyo, Manjuyod; 3) Olympia, Bais City; 4) Silliman Beach, Dumaguete City; and 5) Si-it Bay, Lutoban, Zamboanguita, all in Negros Oriental (Figure 1).

For the microplastic component of this study, we examined 300 fish samples (90 each from Ayungon, Bais, and Dumaguete, while only 30 in Manjuyod) between October 2018 and June 2019. Samples from Zamboanguita, however, were not included in the microplastic sub-study. At the laboratory, each fish was immediately processed measured in terms of standard length (cm) and total weight (g). Viscera were then excised by cutting a longitudinal slit at midbody and at right angle around the posterior edge of the body cavity.



**Figure 1.** Map showing the location of the sampling sites for *S. fuscescens*.

**Microplastics.** Guts and gills were separated (excess fats and other organs removed) and soaked in 10% potassium hydroxide (KOH) for 3-5 days to undergo organic digestion (Lusher, 2017). Subsequently, digesta were filtered (Whatman, 2.5 microns pore size) and examined under dissecting microscopes (Zeiss®, 40x magnification) with built-in cameras at Silliman University-Angelo King Center for Research and Environmental Management



(SUAKCREM). Identification of plastic polymer type was conducted using fourier-transform infrared (FTIR) spectroscopy (Perkin Elmer, Spectrum 2) at NORSU Chemistry Laboratory. Confirmation of polymer type was determined using a library of polymers/compounds (built-in software in Perkin Elmer FTIR, Spectrum 2). Positive identification was considered only when correlation reached 0.6 and above.

Procedural blanks (controls) were frequently performed to determine the presence of contaminants. Microplastic particles that closely resembled the contaminants were excluded from the analysis.

## Key Informant Interviews

To determine the scope and characteristics of the danggit fishery, key informant interviews with one key person per Barangay were conducted by a local student hired as an interviewer from 22-28, January 2020, from Barangay Campuyo (Manjuyod municipality) in the North to Barangay Luca (Tanjay City) in the South.

## Reproductive Biology

**Determination of sex and size at sexual maturity.** The weight (to the nearest 0.1 g) and standard length (to the nearest 1.0 mm) of each fish sample was measured and dissected to determine the sex and gonad developmental stage. Each gonad was classified following the macroscopic gonad staging scale adapted from Kamakuru and Mgaya (2004). Using this scheme, gonads of immature fish were classified as Stages I and IIa, while those of sexually mature fish were classified as follows: Stage IIb – Resting; Stage III – Ripening; Stage IV – Ripe; and Stage V – Spent.

To determine size at maturity ( $Lm_{50}$ ), the proportion (%) of mature and males was plotted and predicted using the logistic curve fit based on the formula:

$$Lm_{50} = a / (1 + e^{-b+cx})$$

where  $a=100\%$ , 1 and  $e=2.71828$  were constants,  $b$  and  $c$  were the parameters to be estimated using the least-squares regression using the *car* package in R (R Core Team, 2015).

The size at sexual maturity is defined as the size class at which 50% of fish samples are classified as sexually mature (Sadovy, 1996). After determining the best logistic fit,  $Lm_{50}$  was computed using the formula  $-b/c$ .

Mean lengths (in SL mm) of mature male and female individuals from each of the four sampling sites were compared and tested for statistical significance using the Kruskal-Wallis test with Dunn's post hoc test. This was implemented using the *rstatix*, *ggpubr*, and *tidyverse* packages in R.

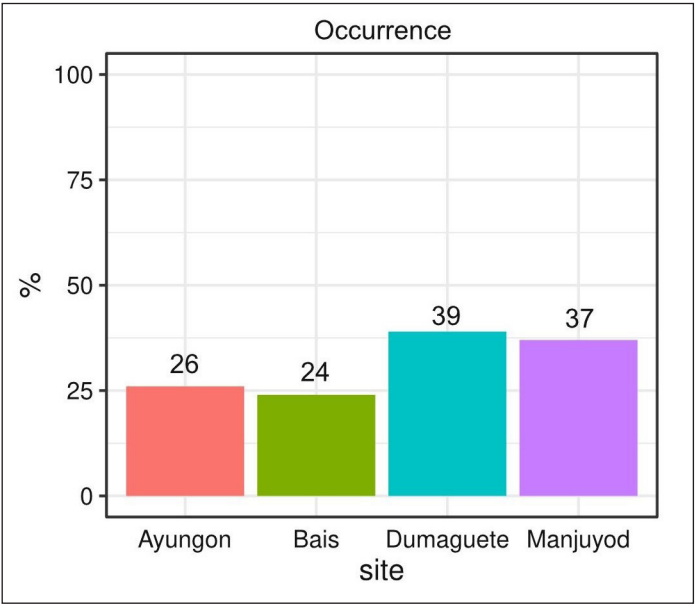
**Estimation of batch fecundity.** Ovaries that were classified into Stage III to V were fixed in 10% formalin. Batch fecundity (i.e., the number of eggs per spawn) was estimated using these preserved ovaries by applying the gravimetric method described by Hunter et al. (1985). In this method, subsamples of known weights (~0.01g) were obtained from each ovary. For consistency, subsamples were obtained from the left ovaries. To loosen the connective tissues, 2-3 drops of glycerine were added and after about 10 minutes, the sub-sample was macerated gently with a blunt end of a dissecting needle. The hydrated oocytes (i.e., eggs that are about to be released within 24 hours) were subsequently counted, and the total number of hydrated oocytes from each sampled ovary was extrapolated from average counts of hydrated eggs from the subsamples.

## RESULTS

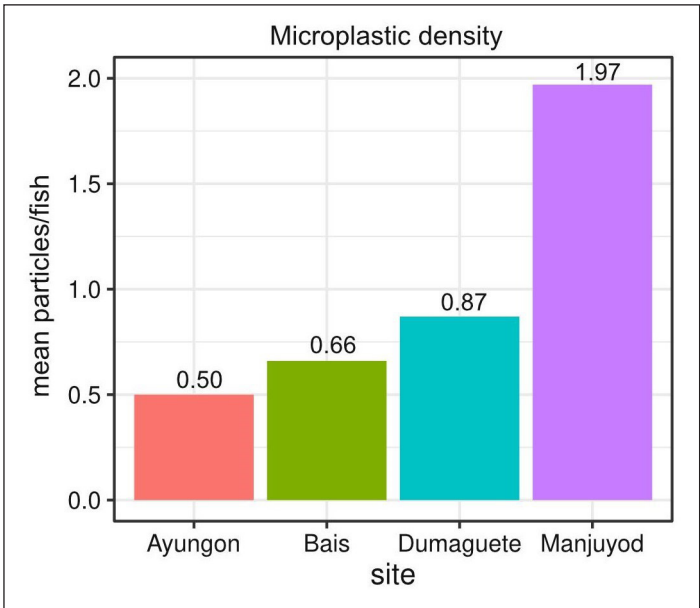
### Microplastics

Of the 300 individuals that were examined, 91 fish samples (30%) had microplastics (both in guts and gills) (Figure 2). Among sites, Dumaguete ranked the highest (39%,  $n = 90$ ) in terms of microplastic occurrence, followed by Manjuyod (37%,  $n = 30$ ). However, in terms of the amount of particles per fish, the highest recorded density (1.97 particles/fish) was in Manjuyod (Fig. 3). One fish from Manjuyod had 44 fragments of microplastic, which was identified as polypropylene.

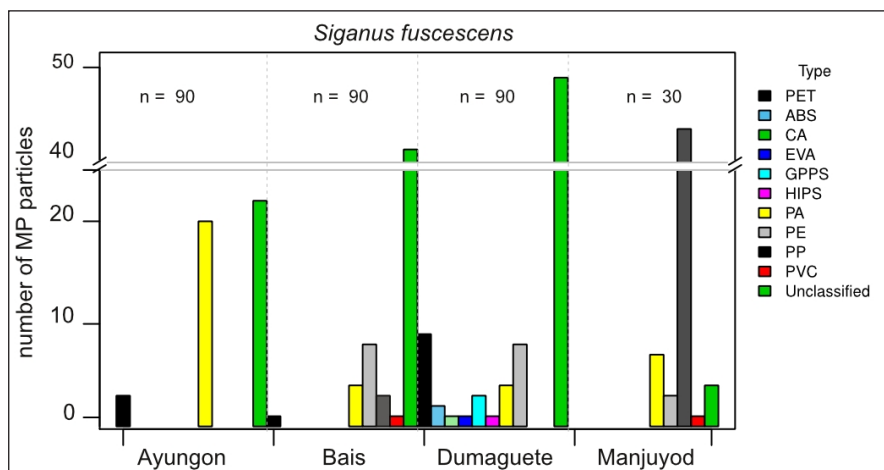
The proportion and types of microplastic ingested by *S. fuscescens* (Fig. 4) were different from those found in the sediment. This may suggest that the types of microplastics that were present in the sand have different densities compared to those attached to the seagrasses and algae and those consumed by the rabbitfish. The photomicrographs of microplastic particles are shown in Figure 5.



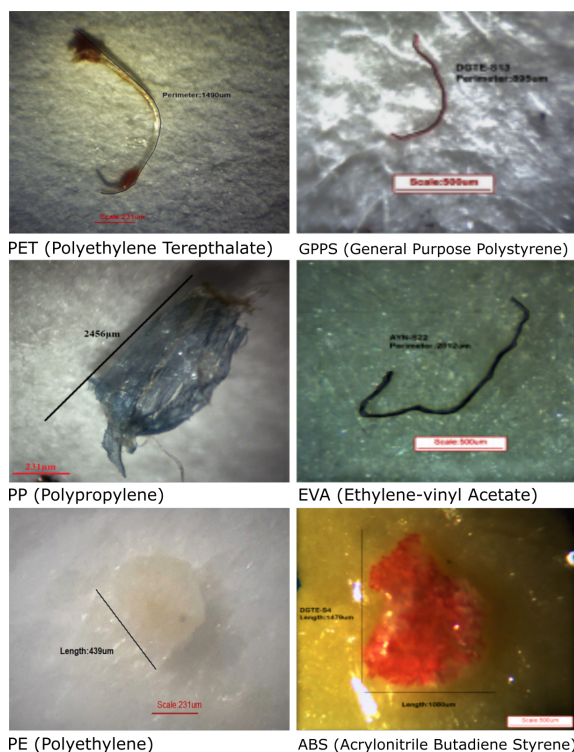
**Figure 2.** Occurrence of microplastics in *S. Fuscescens* across four sampling sites (n=90 in all sites, except Manjuyod, n=30)



**Figure 3.** Average number of microplastic particles per fish across sampling sites (n=90 in all sites, except Manjuyod, n=30)



**Figure 4.** Classification of microplastic types from *S. fuscescens* (polyethylene terephthalate (PET), acrylonitrile butadiene styrene (ABS), cellulose acetate (CA), ethylene-vinyl acetate (EVA), general purpose polystyrene (GPPS), high impact polystyrene (HIPS), polyamide (PA), polyethylene (PE), polypropylene (PP), polyvinyl chloride (PVC) (Unclassified are those with FTIR correlation < 0.6.)



**Figure 5.** Examples of microplastic particles from the Rabbitfish *S. fuscescens*

## Notes on “Danggit” Fishery

Results from the key informant survey revealed that out of about 853 fishermen who fished in both North and South Bais Bays, 179 primarily targeted *S. fuscescens*.

There were at least 246 fishing gears (number of units) deployed daily, with an estimated combined catch of 1,574 kg per day. Given that fishermen catch fish year-round, an annual harvest of around 500 metric tonnes is highly probable. This may still be an underestimation, given that fish corrals may sometimes catch up to 100 kg (normally 3-40 kg/day) during the new moon of each month. Most fishing gears that target this species were deployed in seagrass beds, while only fish pots (panggal) were deployed in coral reefs.

Based on the interview with one main dried-fish supplier from Bais City, preliminary data were collated on the volume of dried “danggit” (*S. fuscescens*) from Bais Bay. In two months (early 2020) orders from him amounted to 120-130 kg of dried “danggit” (about 7-9 kg of fresh “danggit” make up 1.0 kilogram of dried “danggit”) and between June and November 2019, he sold 300-400 kg of dried “danggit”. This means one supplier alone would need to buy 480-520 kg every month of fresh “danggit”. The months of December to May were considered lean season (low volume) for “danggit” but we do not have specific data for this. Other dealers (6-7 persons) also sold a combined volume of about 300 kg of dried “danggit”. This would mean an additional 400 kg of fresh “danggit” per month. Overall, the “danggit” fishery in Bais Bay may be estimated to have produced roughly about 880-920 kg/month of fresh “danggit” to supply the demand for dried fish alone. Considering that the peak season ran for six months in a year, there is an estimated annual harvest of 5.28-5.52 tonnes/year of “danggit”. Given that the fresh market price of “danggit” was Php 120/kg (range from Php 90-150/kg depending on size and location), the harvest is estimated to have a value of Php 633,600 to 662,400 as total annual income. This figure would still be an underestimation, given that some undetermined portions of the total catch was sold directly as fresh fish at the fish market.

Other islands/locations in the Visayas that produce dried “danggit” include Bohol, Cebu (mainly Bantayan island), and Negros Occidental. We have thus far no fishery data from these areas.

## Size at Sexual Maturity

Table 1 shows a general trend in the attainment of male and female maturity of *S. fuscescens*. Males matured at 96.28 mm, which was slightly lower compared to the range reported in 1979 (100 - 105 mm SL) by Alcala and Alcazar (1979). Females matured at 115.48 mm SL, while Alcala and Alcazar (1979) reported 111 - 115 mm SL range for mature females. However, when specific locations were compared to the 1979 data, female samples from Bais matured at 100 mm SL, while those from Dumaguete matured at 96.86 mm SL. Those from Zamboanguita matured at 139.5 mm SL, while those from Ayungon matured at 116.35 mm SL. Note that the latter two locations had lower fishing pressure compared to Dumaguete and Bais. Males from Dumaguete matured at 78.13 mm SL, while those from Ayungon matured at 109.62 mm SL. Sizes of mature male and female *S. fuscescens* between sites showed significant difference based on the Kruskal-Wallis test ( $p < 0.001$ ).

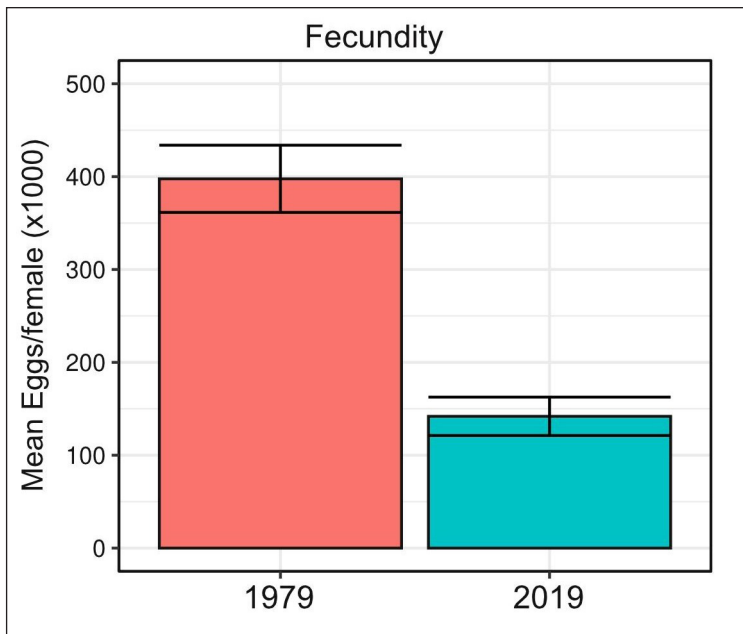
**Table 1**

*Size at Sexual Maturity ( $L_{m50}$ ) and Comparisons of Sizes of Mature Males and Females of the Spotted Rabbitfish *Siganus fuscescens* from Four Sampling Locations along Negros Oriental, Central Philippines SL=Standard Length (mm)*

Parameters	Site				Total
	Ayungon	Bais	Dumaguete	Zamboanguita	
N (total)	232	349	162	75	818
N (male)	83	150	95	17	345
$L_{m50}$	109.62	88.62	78.13	89.87	96.28
mean size mature males (SL)	102.28	91.96	126.14	154.46	111.99
Kruskal-Wallis test	p-value < 0.001				
post-hoc (Dunn's test)	Dumaguete vs Zamboanguita not significant (p-value>0.05)				
N (female)	149	199	67	58	473
$L_{m50}$	116.35	100.00	96.86	139.50	115.48
mean size mature females (SL)	134.46	132.25	152.83	154.30	140.00
Kruskal-Wallis test	p-value < 0.001				
post-hoc (Dunn's test)	Ayungon vs Bais; Dumaguete vs Zamboanguita not significant (p-value>0.05)				

## Fecundity

In this study, fecundity was generally lower compared to that in 1979 based on the data provided by Alcala and Alcazar (1979). The data in 2019 was based on the 22 mature female gonads examined from two sites (i.e., Dumaguete and Bais) (Figure 6). In 1979, fecundity ranged from 165, 727 to 650, 625 eggs/female (mean = 397, 680 eggs/female). In this study, fecundity ranged only from 11, 540 to 277, 550 eggs/female (mean = 141, 890 eggs/female). This difference is about three-fold decline in female fecundity within 40 years of harvesting this species.



**Figure 6.** Comparison of the batch fecundity of *S. fuscescens* between 1979 (n=15) and 2019 (n=22) (Error bars indicate standard errors [S.E.].)

## DISCUSSION

In this study, we present physiological evidence related to the potential impact of two major threats to the sustainability of the “danggit” fishery in Negros Oriental: 1) plastic pollution; and 2) overharvesting, which includes the harvest of small individuals. Plastic pollution has already reached the food

chain as shown by the presence of microplastics in the guts and gills of the rabbitfish *S. fuscescens*. In addition to the relatively unknown physiological, population, and community-level impacts to rabbitfish of ingestion of microplastics, there is also a possible danger that the microplastics could be ingested by humans through the widespread habit of eating fermented viscera (including guts, locally known as “dayok”) of this fish in the Visayas. Occurrence of fish with microplastics inside their guts and gills was highest in Dumaguete City. This city had the highest population (131,400 in 2015) in the province of Negros Oriental. Browne et al. (2011) showed a direct relationship between microplastic density and human population size.

Our recent estimate on microplastic ingestion by a siganid was lower (overall, ~30%) compared to cases in other neighboring countries like Indonesia which reported that 100% of sampled siganids had microplastics although we reported 46.7% occurrence in our previous paper (Bucol et al., 2020). In terms of microplastic density (i.e., particles/fish), our data ranged from 0.5 to 1.97 microplastic particles/fish, which is comparably lower than the reported 10-28 particles/fish in Luzon by Espiritu et al. (2019). A study in Indonesia reported a microplastic density ranging from 4-52 particles/fish for *S. canaliculatus* (Hastuti et al., 2019). A recent study by Palermo et al. (2020) on microplastic ingestion in a sardine species (*Sardinella lemuru*) from northern Mindanao reported a slightly higher microplastic density of 3.7 particles/fish and a high percent occurrence (85%). Microplastics have been found present in dried fish (Karami et al., 2017), canned sardines, and sprats (Karami et al., 2018).

This study highlights microplastic pollution in the Tañon Strait, a major fishing ground and conservation area in the Philippines. However, it is also noteworthy that another group of students from Arizona State University and Old Dominion University in 2018 also found that about 47% of the fish samples from both Bais and Dumaguete had microplastics inside their guts (Shire & Clark, 2018 unpublished report). This report also showed high concentrations of heavy metals (e.g., lead, arsenic, and aluminum) in their livers.

Evidence of overharvesting of this species could be gleaned from the relative reduction in size at sexual maturity and fecundity, as compared to the baseline data in the 1970s. This supports the findings of Paraboles and Campos (2018) on *S. fuscescens* in Palompon, Leyte, Eastern Philippines.



Other studies have documented overfishing of siganids in Lagonoy Gulf (Soliman et al., 2009; Soliman & Yamaoka, 2010). Our fecundity estimates were also lower than those reported by Jumawan-Nanual and Metillo (2008) for the same species in Pujada Bay, Southern Mindanao. This study noted a three-fold decline in female fecundity, suggesting a potential impact from overfishing.

More studies are needed to determine human-induced impacts on the siganid fishery in the Philippines. Fulton et al. (2020) noticed an increasing trend in siganid landings in both the Philippines and Indonesia, which was probably due to the presence of algal farms that provided food for the fish. This might also hold true in the case of Bais Bay. Anecdotal evidence based on an interview with a local fish vendor from Bais revealed that due to persistent harvesting of siganids in Bais Bay, the fishery almost collapsed some years ago if not for the algal farms that helped sustain the population of *S. fuscescens*.

While most of the highly destructive fishing gears (e.g., *muro-ami*) used in the 1990s (Luchavez & Abrenica, 1997a,b) have been eradicated in Negros Oriental and in most parts of the Visayas, certain gears such as beach seine and fine mesh gill-net are still in use, especially in Bais Bay. A visit to the Bais Fish Market, for example, revealed that juveniles (<7 cm SL) were being sold. It is also noteworthy that a few days after each new moon (probably coinciding with the known spawning period of this species), catch of fish corrals (sometimes reaching to about 100kg per unit) peaked (P. Tolelis, pers. obs.). McManus et al. (1992) documented that fish corrals targeted migrating *S. fuscescens* towards their spawning ground in Bolinao, Pangasinan.

In summary, Tañon Strait is a major fishing ground in Central Visayas, and seafood resources from this body of water, like in many parts of the world, may be at risk of both overexploitation and microplastic pollution. It has been well-established that the chemicals (ingredients) that comprise microplastic particles, in addition to other pollutants that are adsorbed by microplastic particles such as pesticides and heavy metals, can partition from the guts of fish into fish muscle (Zeytin et al., 2020; Zitouni et al., 2020). Lucas and Polidoro (2019) documented varying levels of contaminants such as the dibutyl phthalate (i.e., a suspected teratogen and endocrine disruptor) from the muscle tissues of recreationally-caught fish in Phoenix, Arizona. Moreover,

Deng et al. (2020) showed that microplastics could transport and release phthalate esters into the mice guts and cause aggravated toxic effects. Aside from conducting more research studies, extension activities and information dissemination should be done to target local stakeholders, such as fishermen and vendors, to inform them of the potential dangers of microplastic pollution and the of overfishing of “danggit” fishery resources to humans.

An ongoing study at SUAKCREM funded by the National Academy of Science and Technology Philippines (NAST), through National Scientist Dr. Angel C. Alcala of Silliman University, in collaboration with Negros Oriental State University and Dr. Beth Polidoro of Arizona State University in the USA, aims to quantify the levels of microplastics and potentially adsorbed pollutants in mangrove sediments, bivalves, and marketed seafood products (e.g., dried fish, salted anchovies “bagoong”, and bottled mussels). We are also investigating further as to the potential impact of “bunsod” or fish corral aimed at aggregating siganids especially during the spawning period (i.e., new moon). To address the potential negative impact of fish corrals and other gears (e.g., gill-net) on the stocks of *S. fuscescens*, we recommend setting up more no-take marine reserves (NTMRs) in sites where this species aggregate during spawning. Thus far, there is at least a 50-ha marine reserve in Bais Bay, covering three major ecosystems (i.e., mangrove, seagrass, and coral reef). It is hoped that this no-take marine reserve in South Bais City can protect part of the siganid population, which requires regular monitoring of this no-take marine reserve. Other interventions such as regulating the use of small-mesh nets (e.g., beach seines and gill-nets), that allow small and immature fish to escape capture, should also be implemented to ensure sustainability of the fishery resources.

We call on the offices and the government agencies (e.g., local government units, Department of Environment and Natural Resources, and the Bureau of Fisheries) to take note and validate our findings, and implement proper safeguards to keep the siganid fishery of the country sustainable for current and future generations of our people.

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# Assessment of Conservation Programs in Aquatic Ecosystems Traversing Pampanga River

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The conservation programs implemented in the aquatic ecosystems traversing Pampanga River were assessed based on the following parameters: protection of the environment, change in social behavior, economic benefits from resource use, and policy formulation. Assessment of the outcomes of the conservation programs revealed that local communities' involvement in policy regulation was a significant predictor of the improvement of the river and its biodiversity. Mangrove reforestation was a significant conservation program on improving local communities' overall well-being. In terms of increasing the awareness of local communities through the conservation programs, capability building was an essential aspect. Lastly, in terms of enforcement of and compliance to policy regulations, the mangrove reforestation program was a significant conservation effort intended for the formulation of new policies. For policy makers, environmental agencies, NGOs, and other stakeholders, it is important to consider the involvement of local communities in river management, and mangrove conservation and reforestation programs. Local communities should also participate in capability building programs and policy regulations or patrolling.

**Keywords:** Mangrove reforestation, clean-up drives, policy regulation

## INTRODUCTION

The Philippines is one of the world's largest archipelagos. It consists of 7,641 islands and has an estimated 36,000 km of coastline. It has a total territorial water area of 2.2 million square kilometers, of which 266,000

square kilometers are coastal waters and 1.9 million square kilometers are oceanic.

The country's water supply comes from different sources which include rainfall and surface water resources, i.e., rivers, lakes, reservoirs, and groundwater resources. According to the National Water Regulatory Board (NWRB), the country has 18 major river basins and 421 principal river basins. The total available freshwater resource is at 145,900 MCM/year based on an 80 percent probability of surface water, while groundwater recharge or extraction is at 20,000 MCM/year (NWRB-SPM, 2003; PEM, 2003; ASEAN, 2005, as cited in Greenpeace Southeast Asia, 2007).

Pampanga River is the second largest river in Luzon. It crosses the plains of Central Luzon, and it traverses the provinces of Nueva Ecija, Pampanga, and Bulacan. The river has a total length of 260 kilometers. The headwaters of Pampanga River come from the mountains of the Sierra Madre and drains via the Lanbangan Channel and into Manila Bay. The river has small branches that empty to several fishponds particularly in the town of Candaba. Moreover, Pampanga River provides irrigation to about 363,246 hectares of farmlands in the provinces of Nueva Ecija, Pampanga, and Bulacan (Arbotante et al., 2015). The upper reaches of the river are fit for municipal use, while the lower reaches of the basin are used primarily for irrigation (Kurian, 2004).

The upper reaches of the Pampanga River are endowed with the Pantabangan-Carranglan Watershed Forest Reserve (PCWFR) by virtue of Proclamation No. 561 in May 21, 1969, which established the reserve's boundaries and protecting the area for watershed purposes. The PCWFR borders the Sierra Madre and Caraballo Mountains in Aurora and Nueva Vizcaya. This watershed covers 84,500 hectares (209,000 acres) of the drainage basin surrounding the Pantabangan Lake, an impoundment of the Pampanga River by the Pantabangan Dam. Supplying water to the dam are two rivers that meet at the municipality of Pantabangan: the Pantabangan and Carranglan Rivers (Galvez, 1984). The Carranglan River originates from the Caraballo on the north, while the Pantabangan River originates from the Sierra Madre on the east. In Central Luzon, the PCWFR is considered a critical watershed for the agricultural economy and hydroelectric power generation (Lasco, Cruz, Pulhin, & Pulhin, 2010).

Numerous conservation programs have been implemented to conserve



and protect the aquatic ecosystems in Pampanga River. A recent initiative is the Coastal Resources Management Program (CRMP) which involves reforestation of mangrove areas and protection of old-growth mangrove forests within the coasts of Bulacan and Pampanga. The program provides support to the Manila Bay Coastal Strategy for the conservation of critical marine habitats and biodiversity through the following activities: coastal resource assessment, mapping, and database development; formulation of Coastal Zone and Sea Use plans; establishment of coastal and marine sanctuaries; monitoring and law enforcement, and policy support; and capacity development and IEC. In 2004-2008, about 85 ha of new mangrove forests were established, and 170 ha of old growth mangrove forests were maintained and protected (DENR-EMB, CDC, PPDOs, 2008-2009, as cited in NWRB, 2011).

The NIA-UPRIIS's Watershed Management Program, which started in 1997, is a continuing collaborative undertaking by the NIA-UPRIIS, DENR, and organized POs and cooperatives. These entities co-manage the 10,356 ha of Pantabangan-Carranglan Watershed Forest Reserve (PCWFR). The program includes maintenance of established timber plantations and agro-forests, and protection activities such as patrolling, surveillance, monitoring, and fire management. About 100 ha of the Pantabangan-Masiway watersheds has been rehabilitated by the NIA-UPRIIS in cooperation with the Energy Development Corporation (DENR-EMB, CDC, PPDOs, 2008-2009, as cited in NWRB, 2011).

NPC'S Watershed Management Program, which started in 1995, is a continuing initiative that manages the watersheds supporting two hydro-electric dams in the basin (i.e., Pantabangan and Angat WFRs) through the environmental charges collected from power consumers. In partnership with organized community volunteers, this program involves forest protection such as patrolling, surveillance, and apprehension of violations. In 2008, a total of 90 ha in Pantabangan-Carranglan WFR and 130 ha in Angat WFR were planted (DENR-EMB, CDC, PPDOs, 2008-2009 cited in NWRB, 2011).

Designed to double the forest cover of Pampanga river basin from 24% to 48%, the Pampanga River Basin Rehabilitation Project (PRBRP) was undertaken from 2004 to 2008 in response to flood events in the Pampanga River Basin. The program involved the CBFM beneficiaries who were contracted to undertake the reforestation and maintenance activities. In

2008, a total of 10,075 ha was established through tree plantation, while 5,766 ha was maintained and protected, benefiting a total of 62 POs (DENR-EMB, CDC, PPDOs, 2008-2009 as cited in NWRB, 2011).

The Integrated Research and Development Program on Biodiversity Assessment and Conservation of Selected Forest Ecosystems in Central Luzon (2011-2015) was undertaken by Central Luzon State University and other agencies in the Carranglan Watershed, Bataan, Bataan Natural Park, and Baler Forest Reserve. The program aimed to assess the diversity and status of plant and animal resources; develop green technology from biological resources; and promote conservation, management, and sustainable use of these resources (Paz-Alberto et al., 2016).

Bangkung Malapad, now known as the Sasmuan Bangkung Malapad Critical Habitat and Ecotourism Area (SBMCHEA) was also established in Brgy. Batang II, Sasmuan, Pampanga. PENRO Pampanga identified Bangkung Malapad mudflats as a critical habitat ecotourism area for its enormous migratory birds. The SBMCHEA is a mangrove islet formed by volcanic sediments. Conservation activities included regular clean-up, restoration, and mangrove planting (Samuan Municipal Agriculture Office, 2017).

First Gen Hydropower Corporation involvement in conservation programs in Pantabangan and Carranglan areas is through biodiversity monitoring and conservation. First Gen is a subsidiary of First Philippine Holdings Corporation (FPH), one of the oldest and largest conglomerates in the Philippines. First Gen's main interest is in power generation, power distribution, infrastructure, manufacturing, and property development. In cooperation with the LGUs and local communities, First Gen has supported community development projects that address economic, socio-cultural, health, education, and environmental concerns. As financial benefits to local communities within their area, First Gen allocates Php0.01 per kilowatt-hour of their total electricity as mandated by the implementing rules and regulations of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act of 2001 (EPIRA), and Energy Regulations No. 1-94 of the Department of Energy (DOE). The financial benefits are devoted to electrification, development and livelihood, or reforestation, watershed management, health and /or environment enhancement projects identified by LGUs as directly beneficial to the local communities. In addition, First

Gen also collaborates with various NGOs to develop and implement projects that have a significant impact on environmental conservation and education (First Gen Hydropower Corporation, n.d.).

The Manila Bay Coastal Strategy is a continuing Supreme Court mandamus that provides a comprehensive environmental management framework. The strategy covers the social, economic, and environmental aspects of Manila Bay in relation to people's values and the threats that impair those values. The coastal strategy provides a comprehensive environmental management framework, targeted outcomes, and a series of action programs involving the participation of both government and non-government sectors. This coastal strategy covers about 1,800 km<sup>2</sup> surface area of the Manila Bay and the surrounding watershed areas of 17,000 km<sup>2</sup> (Partnership in Environmental Management for the Seas of East Asia [PEMSEA], 2001). Under the operationalization of the coastal strategy, the Manila Bay Rehabilitation Project (MBRP) was formulated and is being implemented. The MBRP covers the Manila Bay Region such as Region 3, Region 4A, NCR, and Part of Nueva Vizcaya. Through its management interventions, MBRP aims to identify at least one area as a critical habitat; review Protected Areas (PAs) Management Plans of selected priority Pas in the Manila Bay Region; raise coastal community's awareness on protection and management of marine resources; and review the implementation of the Integrated Coastal Management (ICM) Plans as well as assess DENR issued Tenurial Instruments in the Manila Bay Region. The project has formulated four outcomes, namely, (a) identification and mapping of critical habitats in Manila Bay region, with the help of various management interventions from DENR Field Offices concerned, in cooperation with the LGUs; (b) increased awareness of PA Management Boards on the importance of water quality and quantity, as part of the Protected Area Management Plans of priority PAs in the Region (PCWFR, BNP, MPMGPL, MBSCPL and HTPL); (c) increased awareness and knowledge of coastal communities regarding the management of Marine Turtle, Macrobenthic Community, and Avi-fauna; (d) promotion of organic farming in the selected eighteen; and (e) DENR issuance of tenurial instruments in the Manila Bay Region (BMB, n.d.).

Outside the Philippines, conservation programs have also been implemented. In Indonesia, Sriyana (2018) noted that river conservation practices were solely depending on social engineering, and cultural, economic,

and environmental approaches without considering law enforcement. Meanwhile, Yun et.al (2017) reported that a transboundary river like the Mekong River, which has six riparian states, and different imperfect and impertinent water legislation and policies, had established conventions and agreements which included Joint Declaration of Principles for Utilization of the Waters of the Mekong Basin, Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, The Greater Mekong Sub-Region Economic Cooperation Program Strategic Framework, and the Kunming Statement. However, establishments of these conventions and agreements did not have legal standing and were not signed by all six riparian countries. As result, a comprehensive water pollution management was difficult to achieve (Yun et al, 2017).

In southeastern part of Europe, particularly in Romania, an integrated basin-level approach has been used for many decades. A River Basin Water Agency (ABA), which is tasked with water resources management planning and implementation, and operation of large facilities, has been established in each of its 11 internal river basins (The World Bank Europe and Central Asia Region, 2014). In the western context, Duffy (2011) has stated that one of the several programs implemented by the United States Department of Agriculture (USDA) was the Wetlands Reserve Program (WRP). WRP had resulted in the restoration of approximately 29,000 hectares in California's Central Valley (CCV) and roughly 12,300 hectares in Oregon's Upper Klamath River Basin (UKRB). These water resources were agricultural dominated landscapes that had experienced extensive wetland losses and hydrological alteration. Restored habitats in the CCV and UKRB were thought to provide a variety of ecosystem services, but the actual benefits from these services were not known. The study considered ecosystems services in the assessment of conservation programs. Ecosystem services used were as follows: soil and vegetation nutrient content, soil loss reduction, floodwater storage as well as avian, amphibian, fish, pollinator use, and habitat availability.

It is evident that conservation programs and initiatives have focused on the management, conservation, and protection of Pampanga River. Majority of the programs and initiatives are geared towards people empowerment, resource protection, conservation, rehabilitation, and sustainable management. Various stakeholders such as the national

government, local communities and government units, fisherfolks, and others continuously help in the conservation, management, and protection of Pampanga River. Moreover, there is an ever-increasing concern for the conservation, management, and protection as evidenced by the promulgation of conservation of programs related to aquatic ecosystem. However, the sustained involvement and commitment of local communities might be influenced by factors such as incentives, grants, financial support, and others. It was in this context that this study was conducted in order to assess the conservation programs on aquatic ecosystems traversing the Pampanga River.

## METHODOLOGY

The study covered five selected areas where river and mangrove ecosystems traverse Pampanga River. These areas were as follows: (a) Upper portion of the Pampanga River (i.e., Barangay Conversion, Pantabangan, Nueva Ecija, and Barangay Bunga and R.A. Padilla, Carranglan, Nueva Ecija; (b) Middle portion: urban ecosystems in Cabanatuan City, Nueva Ecija; and (c) Lower Portion: Sasmuan, Pampanga and Calumpit, Bulacan. The study was conducted from April 2018 to December 2018.

The different local communities living near the Pampanga River and its tributaries comprised the respondents of this study. The respondents were selected through a stratified two-stage random sampling method. The researcher-designed questionnaire used in data gathering was pre-tested among selected members of the People's Organizations in Barangay Tapil Bunga, Carranglan, Nueva Ecija.

Descriptive statistics such as frequency counts and percentages were used in describing the data. The Chi-Square using Cramer's V coefficient was used to analyze the association between categorical variables. The hypotheses were tested at 1 and 5 percent level of significance. Binary logistic regression analysis was used to predict the likelihood of the improvements in the environment, social, economic, and policy formulation of the outcomes of the different conservation efforts. Outcomes were analyzed using the SPSS.

## Factors and Sub-Factors Associated with the Different Conservation Programs

The factors and sub-factors that were considered to be associated with the conservation programs are presented in Table 1. These conservation efforts were perceived to be associated with the following factors: protection of the environment; change in practice of the local communities; economic benefits from resource use; and formulation, amendment, revision, and termination of environmental laws. Under each factor, sub-factors were formulated and were used to measure the strength of association between the conservation programs and their outcomes. The sub-factors were classified according to the following aspects: improvement of ecosystem and biodiversity; improvement of the overall well-being of communities; improvement in the distribution of economic benefits from resource use; increased awareness of environmental resources conservation; change in behaviors for the improvement of species, habitat conservation, and policy formulation, amendment, revision, and/or termination.

**Table 1**

*List of Factors and Sub-factors Perceived to Have Association with the Different Conservation Programs*

Factors	Sub-Factors
RIVER	<ul style="list-style-type: none"> <li>• Improvement in the quality of water</li> <li>• Improvement in the flow of water</li> </ul>
Protection of the Environment	<ul style="list-style-type: none"> <li>• Presence of wildlife in the river which indicate that the river can still support wildlife</li> </ul>
Environmental Aspect: Improve Ecosystem and Biodiversity	<ul style="list-style-type: none"> <li>• Improvement in the overall condition</li> <li>• Numerous fish compared to 5 years ago</li> <li>• Conservation programs increased population of fishes</li> <li>• Presence of algae floating in the river giving life to other species</li> <li>• Underwater grasses that thrive in the river</li> <li>• Abundant population of clams, mussels, and other invertebrates in the river</li> <li>• Birds feeding on the river's fish and invertebrates</li> <li>• Presence of fish species that were not seen for many years</li> <li>• Massive sedimentation and erosion, making the river narrow</li> </ul>

MANGROVE	<ul style="list-style-type: none"> <li>• Improvement in mangrove forest cover</li> </ul>
Protection of the Environment	<ul style="list-style-type: none"> <li>• Improvement in productive capacity of timber</li> <li>• Trees as product product of conservation</li> </ul>
Environmental Aspect: Improve Ecosystem and Biodiversity	<ul style="list-style-type: none"> <li>• Improvement in soil quality</li> <li>• Benefit on wildlife</li> <li>• Improvement of overall condition</li> <li>• Growth of trees in the mangrove areas, making the wildlife multiply</li> <li>• Presence of wildlife which indicate that the mangrove can still support wildlife</li> <li>• Presence of same species</li> <li>• Presence of numerous birds thriving in the mangrove</li> <li>• Presence of lots of insects in the mangrove</li> </ul>
Economic Aspects: Economic Benefits from Resource Use	<ul style="list-style-type: none"> <li>• Getting enough income from the use of natural resources</li> <li>• Being able to send children to school through the income coming from the use of natural resources</li> <li>• Needing extra job that is not dependent on natural resources</li> <li>• Being satisfied with earning from the use of natural resources</li> <li>• Being paid for planting trees</li> <li>• Engaging in nursery management and seedling production and being paid for it</li> <li>• Getting additional income through my active participation in the organization</li> <li>• Having access to the use of natural resources</li> <li>• Being allowed to engage in selective tree cutting</li> <li>• Being allowed to fish in the river</li> <li>• Being allowed to get water from river for irrigation</li> </ul>
Change in Practice of the Communities	<ul style="list-style-type: none"> <li>• People who are engaging in electro-fishing</li> <li>• People who are not segregating their waste</li> </ul>
Social Aspect: Increased Awareness on Environmental Resources Conservation	<ul style="list-style-type: none"> <li>• People who hunt wildlife</li> <li>• Communities that are poaching timber</li> <li>• People who are dumping waste anywhere</li> <li>• Industrial discharge to the river</li> <li>• Urban land development</li> <li>• Soil erosion from farmland</li> <li>• Industrial discharge to agro-ecosystem</li> </ul>
Change in Behaviors to Improve Species and Habitat Conservation	<ul style="list-style-type: none"> <li>• "I engaged in conservation practices that contribute to the protection and conservation of the environment."</li> <li>• "My activities in the land/water-bodies does not make much difference in overall condition of the environment."</li> <li>• "If I wanted to, I have the ability to change the way I used resources to protect the environment."</li> <li>• "I have the knowledge and skills I need to use conservation practices."</li> <li>• "Farmers/fishermen/local communities in my community have the ability to work together to change land/river use practices."</li> <li>• "My community has the leadership it needs to protect the environment."</li> </ul>

- |                    |   |
|--------------------|---|
| Policy Formulation | <ul style="list-style-type: none"> <li>• There are new ordinances that have been formulated and enforced in the community.</li> <li>• There are ordinances/laws that have been amended.</li> <li>• There are ordinances/laws that have been revised.</li> <li>• There are ordinances/laws that have been terminated.</li> </ul> |
|--------------------|---|

## RESULTS

### The Study Area: Pampanga River

The Pampanga River Basin has a total area of 11,195.17 km<sup>2</sup> spanning five regions (i.e., Region I, II, III, IV-A, and NCR) and traversing the provinces of Pangasinan, Nueva Vizcaya, Zambales, Tarlac, Pampanga, Nueva Ecija, Bulacan, Bataan, Aurora, and Rizal. The basin covers about 101 municipalities constituted by 2,109 barangays. The area also includes seven rivers namely Pampanga, Angat, Peñaranda, Coronell, Pantabangan, Rio Chico, and Pasac Rivers.

### Description of the Aquatic Ecosystems

Providing livelihood to the communities and irrigation to their farms, the river ecosystem was found in all of the study areas. The ecosystem was rich in different fish species, crustaceans, mollusks, and other invertebrates. Table 2 shows the characteristics of the sites covered.

**Table 2**

*Characteristics of the Various Sites Covering Aquatic Ecosystems of the Pampanga River*

CLASSIFICATION OF THE AREA	STUDY AREAS					
	Brgy. Conversion, Pantabangan, Nueva Ecija	Brgy. R.A. Padilla & Bunga, Carranglan, Nueva Ecija	Brgy Sta. Lucia & Meyto, Calumpit, Bulacan	Brgy. Batang II Sasmuan, Pampanga	Brgy. ValdeFuente & Mabini Homesite, Cabanatuan City	Brgy. Sumacab Sur & Norte, Cabanatuan City
Forest Ecosystem	Yes	Yes	None	None	None	None
Mangrove Ecosystem	None	None	Yes	Yes	None	None
Near a River System	Yes	Yes	Yes	Yes	Yes	Yes
Near a Watershed	Yes	Yes	None	None	None	None
Near a Bay or Estuary	None	None	None	Yes	None	None



Presence of Livestock/ Poultry Areas	Yes	Yes	Yes	Few	Few	Few
Presence of Agro-Ecosystem	Yes	Yes	Yes	None	Yes	Yes
Next or Near Industrial Areas	None	None	Yes	Yes	None	None
Aquaculture	None	None	Yes	Yes	None	None
Urban Area	None	None	None	None	Yes	Yes
Presence of: Buildings	None	None	None	None	Yes	None
Transportation networks	Rough road	Cemented & rough road	Yes	Yes	Yes	Yes
Modified Surfaces such as Parking Lots, Roofs, and Landscaping	None	None	Yes	Yes	Yes	Yes
Residential or Housing	Yes	Yes	Yes	Yes	Yes	Yes
Industrial, Commercial, and Transportational Uses	None	None	Near to commercial and industrial areas	Next to industrial areas	Presence of commercial areas	Presence of commercial areas
Major Forest Type	Dipterocarp, mossy and pine forest, grassland	Dipterocarp, mossy and pine forest, grassland	Presence of mangrove forest (sasa)	Mangrove Forest	None	None
Endangered, Threatened, Rare Species	Wild boar/ deer, wild chicken, bayawak, Bignay, Binayoyo, Tibeg, Akleng Parang	Wild boar/ deer, wild chicken white and red lauan, Phil. Eagle, white and red lauan, Philippine Bulbul and King Fisher	Sasa	-	-	-
Harvested in the Area	Different kind of vegetables, palay, fruits, fish	Different kind of vegetables, palay, fruits, fish	Different kind of vegetables, palay, fish	Fish, crustaceans	Different kind of vegetables	Different kind of vegetables
Other Uses of the Forestland/ Aquatic areas	Education/ Tourism (minimal)	Education/ Tourism (minimal) Source of livelihood	Recreation- Fishing Contest Source of livelihood	Eco-Tourism/ Recreation/ Education Source of livelihood	Irrigation/ quarry Source of livelihood	Irrigation/ quarry Source of livelihood

Source: Focus Group Discussions and Key Informant Interviews

## Participation in Conservation Programs and Initiatives

As shown in Table 3, the study determined the participation of the respondents in different ecosystem and biodiversity conservation programs, capability building, information campaign using IEC materials, and policy regulation.

### Ecosystem and Biodiversity Conservation Programs

Clean-up drives and mangrove reforestation programs were the main conservation programs participated in by local communities (Table 3). About 36% of the respondents participated in the clean-up drives. Based on the survey, the respondents from Bulacan and Pampanga participated in the river clean-up drives that were part of the Manila Bay Clean-up Rehabilitation and Preservation Program. As members of BFARMC, respondents from Bulacan and Pampanga were encouraged to participate in cleaning the river. This was a regular activity conducted once every month. In Bulacan, reports of the monthly conduct of river clean-up were submitted to Municipal's DILG. In Pantabangan and Carranglan, only a few respondents were aware of the river clean-up drives. The respondents were seldom engaged because they were in the mountain most of the time. Moreover, female members of the Rural Improvement Club in Cabanatuan City reported that river clean-ups were conducted in their area, but these were mostly participated in by men. Women were the ones cleaning the barangay premises.

**Table 3**

*Number of Participants in the Different Conservation Programs, Capability Building Programs, Information Campaign Using IEC Materials, and Policy Regulations*

CONSERVATION PROGRAMS	Freq.	%
<b>Ecosystem and Biodiversity Conservation Programs</b>		
River clean-up drives	72	35.82
Monthly clean-up drives	-	-
Mangrove reforestation program	30	14.93
<b>Capacity Building Programs and Information Campaign using IEC Materials</b>		
Capability building programs	40	19.9
Information campaign using IEC materials	89	44.28
Policy regulation/ patrolling	16	7.96

The mangrove reforestation program was participated in by about 15% of the respondents (Table 3). Based on the survey results, majority of those involved in the mangrove reforestation program were from Sasmuan, Pampanga. They were involved in planting mangroves in the SBMCHEA area. The respondents were paid for their involvement in this mangrove reforestation program. As reported by one of the key informant barangay counselors from Sasmuan, Pampanga, the program participants collected, propagated, and planted seeds of mangroves in the protected area. At the time, they were being paid about P2.00 per seedling. However, since the propagation of mangrove seedlings is seasonal, it could only be done during the summer season. In addition, based on the survey, only a few respondents from Bulacan participated in sasa planting. Sasa is a species of mangrove that thrives in the river area in Bulacan. During the survey, respondents did not mention that they were paid for the activity. Unfortunately, the respondents reported that the sasa they had planted were washed-out by water coming from the river, and some of the plants were damaged by the riprap construction activity.

### **Capability Building Programs and Information Campaign using IEC Materials**

Some of the respondents (20%) participated in the capability building programs (Table 3). As gleaned from the survey, the LGU in Sasmuan, through its Municipal Agriculture Office, was able to provide training-seminars on bantay bakauan, fish processing, bantay dagat, wetland conservation, and fishery law enforcement. Similarly, in Bulacan, the Municipal Agriculture Office provided trainings on fish handling or processing, technology training on aquaculture, and banca mo gawa mo project. An orientation seminar for fish vendors was also conducted. In addition, a key informant barangay counselor from Sasmuan, Pampanga reported that those who were involved in the mangrove reforestation program were provided with the necessary training on mangrove plantation, maintenance, and management.

Only about 44% of the respondents were involved in the information campaign using IEC materials. According to the Municipal Agriculture Office of Calumpit, Bulacan, brochures/flyers on *Batas o Alituntunin sa Pangangalaga ng Alimasag, Balik Sigla sa Lawa at Ilog* (BASIL), *Mga Paglabag*

at *Akibat na Kaparusahan Ayon sa Naamyendhang Batas Pangisdaan, Malinis at Masaganang Karagatan* were distributed to the members of BFARMCs. An agricultural or aquaculture technician/agent was also active in providing assistance to farmers/fisherfolks in their barangays. Furthermore, according to the Municipal Agriculture Office of Sasmuan, Pampanga and based on the key informant interview with the tourism officer, the following information campaign IEC materials were used: flyers, brochures, posters, wall calendars, billboards, video clips, barangay lectures, and dalaw-turo. Topics included solid waste management and policy regulations, among others.

### Policy Regulation

Only 8% of the respondents were involved in policy regulation (Table 3). As derived from the key informant interviews, only a few of the respondents were patrolling the area of SBMCHEA in Sasmuan, Pampanga. There were also a few respondents who were tasked to guard the protected area. In addition, the key informant barangay counselor reported that CCTVs were installed in the protected area. Visits to the area should be pre-arranged with the tourism officer. A minimal entrance fee was collected in order to maintain and finance the patrolling and guarding of the area. Visitors were required to clean the area and were prohibited from leaving any trash. The key informant also reported that fishermen were not allowed to fish inside the protected area. Cutting of mangrove was also strictly prohibited. However, in terms of policy regulation in the river, the key informant reported that there was no *Bantay Ilog* in their barangay during the time of the survey. He mentioned that only the barangay officials were patrolling the river and enforcing the laws.

### Protection of the Environment: Improved Ecosystem and Biodiversity

**River ecosystem.** Respondents dwelling in areas near the river were involved in mangrove reforestation programs, clean-up drives, capability building programs, information campaign using IEC materials, and policy regulations. Table 4 shows the measures of association, using Cramer's V, between improvement in aquatic ecosystem (i.e., the river) biodiversity and local communities' involvement in different conservation efforts.

**Table 4**

*Sub-factors with Significant Association with Improvement of Aquatic Ecosystem and Respondents' Participation in Conservation Programs Using Cramer's V*

Conservation Programs	Sub-factors	
	River	Mangrove
<b>Ecosystem and Biodiversity Conservation Programs</b>		
Clean-up Drives	quality of water, flow of water, presence of wildlife, overall condition, numerous fish compared, increased population of fishes, presence of algae, presence of underwater grasses, presence of clams, mussels, and other invertebrates, birds feeding on the river, presence of fish species that were not seen for many years, and presence of invasive species	mangrove forest cover
Mangrove Reforestation Programs	numerous fish, increased population of fishes, and presence of clams, mussels, and other invertebrates	mangrove forest cover, trees are product of conservation programs, and improvement in soil quality
<b>Capacity Building Programs and Information Campaign using IEC Materials</b>		
Capability building programs	quality of water, flow of water, presence of wildlife, river overall condition, numerous fish	None
Information campaign using IEC materials	wildlife, overall condition, increased population of fishes, presence of algae, and presence of clams, mussels, and other invertebrates	None
Policy regulation/patrolling	numerous fish, increased population of fishes, presence of algae, presence of underwater grasses, presence of clams, mussels, and other invertebrates, and birds feeding on the river	mangrove forest cover, timber productive capacity; trees as product of conservation programs, soil quality, benefits on wildlife, overall condition of the mangrove, growing trees, presence of wildlife, presence of same species of trees, presence of birds, and presence of insects.

Out of the 13 sub-factors under the factor protection of the environment for the “improvement of ecosystem and biodiversity,” 12 sub-factors showed a strong positive association (P-Value less than/equal to 0.05/Cramer's V value

ranges from 0.30 – 1.00) with the respondents' involvement in the conservation program's clean-up drives (Table 4).

Six out of the 13 sub-factors showed a strong positive association with the conservation programs regarding policy. Five sub-factors had a moderate association with the local communities' participation in conservation programs, particularly in the information campaign using IEC materials. There were three sub-factors with strong a positive association and two sub-factors with a moderate positive association with the local communities' participation in capability building programs that focused on conservation. Lastly, there were three sub-factors with a strong positive association with the local communities' participation in conservation programs, particularly in the mangrove reforestation programs (Table 4).

**Mangrove ecosystem.** In mangrove areas, all of the sub-factors showed a strong positive association with the respondents' participation in conservation programs on policy regulation. Three sub-factors have a strong positive association with the respondents' participation in conservation programs particularly in mangrove reforestation (Table 4).

### **Protection of the Environment: Improvement in the Overall Well-Being of Communities and Distribution of Economic Benefits from Resource Use**

**River ecosystem.** In terms of improvement of the overall well-being of communities, the conservation programs such as mangrove reforestation and clean-up drives were found to have a strong positive association with all the sub-factors. Moreover, involvement in policy regulation showed a strong positive association with five sub-factors (Table 5). Local communities' involvement in capability building programs was also found to have a strong positive association with three sub-factors.

The sub-factors, namely, distribution of benefits from resource use, involvement of communities in mangrove reforestation, capacity building programs, and policy regulation showed a strong positive association with only one sub-factor (Table 5).

Mangrove Ecosystem

Regarding the improvement of the overall well-being of local communities, the respondents’ participation in capability building programs was found to have a strong positive association with six sub-factors (Table 5). Three sub-factors showed a strong positive association with the respondents’ participation in policy regulation. One sub-factor showed a strong positive association with involvement in mangrove reforestation programs and clean-up drives.

In terms of improvement in the distribution of economic benefits from resource use, only one sub-factor showed a strong positive association with involvement in information campaign using IEC materials.

**Table 5**  
*Sub-factors with Significant Association with the Overall Well-Being, Economic Distribution of Benefits, and Respondents’ Participation in Conservation Programs (Using Cramer’s V)*

Conservation Programs	Sub-factors	
	River	Mangrove
Improvement in the Overall Well-Being		
Ecosystem and Biodiversity Conservation Programs		
Clean-up Drives	enough income, sending children to school, needed extra job, satisfied with earnings, being paid for planting trees, additional income from active participation in the organization	being satisfied with earning from the use of natural resources
Mangrove Reforestation Programs	enough income, sending children to school, needed extra job, satisfied with earnings, being paid for planting trees, additional income from active participation in the organization	being paid for planting trees
Capacity Building Programs and Information Campaign using IEC Materials		
Capability building programs	getting enough income from the use of natural resources, able to send children to school from the income coming from the use of natural resources, and getting additional income through active participation in the organization	getting enough income from the use of natural resources, able to send children to school from the income coming from the use of natural resources, needed extra job that is not dependent on natural resources, satisfied with earning from the use of natural resources, being paid for planting trees, and getting additional income through active participation in the organization

Policy regulation/ patrolling	getting enough income from the use of natural resources, needed extra job that is not dependent on natural resources, satisfied with earning from the use of natural resources, being paid for planting trees, and getting additional income through active participation in the organization	satisfied with earning from the use of natural resources, being paid for planting trees, and getting additional income through active participation in the organization
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#### **Improvement in the distribution of economic benefits from resource use**

##### **Ecosystem and Biodiversity Conservation Programs**

Mangrove Reforestation Programs	allowed to engage in selective cutting of mangrove	None
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##### **Capacity Building Programs and Information Campaign using IEC Materials**

Capability building programs	sustainable use of the aquatic resources	None
Information campaign using IEC materials	None	sustainable use of the resource
Policy regulation/ patrolling	allowed to engage in selective mangrove cutting	None

### **Change in Practice of Communities: Increased Awareness of Environmental Resources Conservation and Change in Behaviour to Improve Species and Habitat Conservation**

**River ecosystem.** One of the evaluated outcomes of the various conservation programs implemented for the benefit of the river ecosystems in the study areas was the change in the practices of the communities. Specifically, the study analyzed the increase in the respondents' awareness of environmental resources conservation and the change in behavior of the communities for the improvement of species and conservation of habitats. In terms of "increase in awareness on environmental resources conservation," results showed that there were five sub-factors that had a strong positive association with the respondents' participation in mangrove reforestation programs (Table 6). Five sub-factors showed a strong positive association with involvement in clean-up drives, while five sub-factors showed a strong positive association with involvement in policy regulation. Meanwhile, involvement in the EIC campaign showed a strong positive association with one factor.

In terms of "change in behavior to improve species and habitat conservation," there were two strong positive associations (e.g., "activities does [sic] not make any difference," "have the knowledge and skills") and



one moderately positive (e.g., “engagement in conservation practices”) association between the sub-factors and participation in clean-up drives (Table 6). Participation in information campaign using IEC materials had a strong positive association with having “knowledge and skills” and a moderate positive association with “engagement in conservation programs” and having “the ability to change the way resources are used”. Participation in mangrove reforestation and policy regulation was found to have a moderate positive association with one sub-factor.

**Table 6**

*Sub-Factors That Have Significant Association with Increased Awareness/ Change in Behavior and Respondents’ Participation in Conservation Programs Using Cramer’s V*

Conservation Programs	Aquatic Ecosystem	
	River	Mangrove
<b>Increased Awareness on Environmental Resources Conservation</b>		
<b>Ecosystem and Biodiversity Conservation Programs</b>		
Clean-up Drives	urban land development, soil erosion from farmland, fertilizer and pesticide usage, livestock and poultry production, and improper disposal of domestic waste	None
Mangrove Reforestation Programs	industrial discharge, soil erosion from farmland, fertilizer and pesticide usage, improper disposal of industrial waste, and aquaculture activities	industrial discharge, urban land development, soil erosion from farmland, use of fertilizer and pesticides, and improper disposal of domestic/industrial waste
<b>Capacity Building Programs and Information Campaign using IEC Materials</b>		
Capability building programs	people engaging in electro-fishing, Livestock and poultry production, Aquaculture activities	communities are poaching timber, urban land development, livestock and poultry production, improper disposal of domestic waste, and aquaculture activities
Policy regulation/patrolling	industrial discharge, urban land development, livestock and poultry production, improper disposal of domestic waste, and improper disposal of industrial waste	industrial discharge, urban land development, soil erosion from farmland, fertilizer and pesticide, improper disposal of industrial waste
<b>Change in Behaviour to Improve Species and Habitat Conservation</b>		
<b>Ecosystem and Biodiversity Conservation Programs</b>		
Clean-up Drives	activities does not make any difference and have the knowledge and skills, engagement in conservation practices	none
Mangrove Reforestation Programs	have the ability to change the way resources are used	none

## Capacity Building Programs and Information Campaign using IEC Materials

Capability building programs	association with engagement in conservation programs, have the ability to change the way resources are used, and have knowledge and skills needed to practice conservation
Information campaign using IEC materials	have knowledge and skills, engagement in conservation programs, have the ability to change the way resources are used
Policy regulation/patrolling	have the knowledge and skills
	None
	None

**Mangrove ecosystem.** In terms of increase in “awareness on environmental resources conservation,” five sub-factors had a strong positive association with the communities’ involvement in capability building programs (Table 6). Moreover, six sub-factors showed a strong positive association with the respondents’ involvement in mangrove reforestation programs, while five sub-factors had a strong positive association with the respondents’ involvement in policy regulation.

In terms of “change in behavior to improve species and habitat conservation,” the respondents’ involvement in capability building programs had a strong positive association with three sub-factors.

## Policy Formulation

**River ecosystem.** Another outcome that was evaluated was the enforcement of and compliance with the policies. The analysis particularly focused on policy formulation, amendments, revision, and termination (Table 7). Results show that four sub-factors had a moderate association with the respondents’ participation in capability building programs. Moreover, strong positive associations were found between participation in clean-up drives and one sub-factor (i.e., “there are new ordinances that have been formulated and enforced in my community”) (Table 7). The same sub-factor was found to have a moderate positive association with the local communities’ participation in mangrove reforestation programs.

**Mangrove ecosystem.** Regarding the mangrove ecosystem, results showed that the respondents’ participation in capability building programs had a moderate association with four sub-factors (Table 7).

**Table 7**

*Sub-Factors with Significant Association with Policy Formulation and Respondents' Participation in Conservation Programs Using Cramer's V*

Conservation Programs	Aquatic Ecosystem	
	River	Mangrove
<b>Ecosystem and Biodiversity Conservation Programs</b>		
Clean-up Drives	New ordinances have been formulated	None
Mangrove Reforestation Programs	New ordinances have been formulated, Ordinances/laws have been terminated	New ordinances have been formulated, ordinances/laws have been terminated
<b>Capacity Building Programs and Information Campaign using IEC Materials</b>		
Capability building programs	New ordinances have been formulated, Ordinances/laws have been amended, Ordinances/laws have been revised, Ordinances/laws have been terminated	None

## Binary Logistic Analysis on Factors/Conservation Programs and Improvement in Ecosystem and Biodiversity

**River ecosystem.** The results of the Chi-Square/Cramer's V Analyses were used in the Binary Logistic Analysis. Conservation efforts that had significant associations were further run in a Binary Logistic Statistical Analysis and were treated as factors or variables that predicted or estimated the likelihood of a resultant protection of the environment, i.e., improvement in the ecosystem and biodiversity. Results presented in Table 8 show that participation in conservation programs, particularly in clean-up drives and policy regulation, was a significant predictor of the likelihood of improvement in aquatic ecosystem and biodiversity. This is indicated by the P-Value of 0.12 and 0.50, and a Ratio (ExpB) of 0.187 and 2.748. It can be inferred that the odds of improving the river ecosystem and biodiversity would likely increase by about 2.75% if local communities would participate in policy regulation and patrolling implemented in their area.

In terms of the association between the local communities' involvement in clean-up drives and improvement in river and biodiversity, an inverse relationship was established (Table 8).

**Table 8**

*Significant Conservation Programs/Factors Associated with the Improvement of the Environmental, Social, and Economic Aspects of the Various Ecosystems in the Study Areas*

FACTORS/SUB-FACTORS	COEFFICIENT ODDS P-VALUE		
	B	Ratio (ExpB)	Sig
<b>Protection of the Environment</b>			
<b>River Ecosystem</b>			
Improvement in Ecosystems and Biodiversity			
Clean-up Drives	-1.677	.187	.012
Policy Regulation	1.011	2.748	.050
Improvement in the overall well-being of communities			
Mangrove Reforestation	2.135	8.453	<.0001
<b>Mangrove Ecosystem</b>			
Improvement in Ecosystems and Biodiversity			
Policy Regulation	2.566	13.009	0.001
Improvement in the Overall Well-Being of Communities			
Clean-up Drives	1.141	3.129	.050
<b>Change in Practice of the Communities</b>			
<b>River Ecosystem</b>			
Change in Behavior to Improve Species and Habitat Conservation			
Clean-up Drive	-.752	.471	.032
Capability Building Programs	1.369	3.931	<.0001
<b>Mangrove Ecosystem</b>			
Change in Behavior to Improve Species and Habitat Conservation			
Capability Building Programs	1.669	5.308	.001
<b>Policy</b>			
<b>Aquatic Ecosystem</b>			
Enforcement/Compliance of/to Policy Regulation			
Mangrove Reforestation	1.348	3.849	.003

Significant at  $\alpha = .05$

## Mangrove Ecosystem

The Binary Logistic Regression Analysis results in Table 8 shows that the conservation program that focused on communities' involvement in policy

regulation was a significant predictor of the improvement of the mangrove ecosystem and biodiversity, as indicated by the P-Value of 0.001 and Ratio (ExpB) of 13.009. The statistical value could mean that the odds of improving the mangrove ecosystem and biodiversity would increase by about 13.009% if local communities would participate in policy regulation in the mangrove areas.

### **Binary Logistic Analysis of Factors, Improvement in Overall Well-being, and Distribution of Economic Benefits**

**River ecosystem.** Participation in mangrove reforestation programs was a significant predictor of improvement in the overall well-being of the local communities (Table 8). It can be deduced that the odds of seeing improvement in the overall well-being of local communities were likely to increase by about 8.453% if they would participate in mangrove reforestation programs.

**Mangrove ecosystem.** The communities' involvement in conservation programs that focused on clean-up drives was found to be significant predictor of improvement in the overall well-being of the communities, as indicated by the P-Value of 0.050 and the Ratio (ExpB) of 3.129 (Table 8). Statistical results revealed that the odds of improvement in the overall well-being of local communities were likely to increase by 3.129% if they would get involved in clean-up drives.

**Binary logistic analysis of factors, change in behavior, and increased awareness of the river ecosystem.** Participation in clean-up drives and capacity building programs were significant predictors of the likelihood of changing local communities' behavior towards improving species and habitat conservation. This is indicated by the P-Value of 0.032 and  $<.0001$ , and Ratio (ExpB) of 0.471 and 3.931, respectively (Table 8). The significant association means that the odds that the local communities would change their behavior for the sake of improving species and conserving habitats would likely increase by 0.47% and 3.93% if these communities would participate in clean-up drives and capability building programs, respectively.

**Mangrove ecosystem.** The analysis showed that participation in capability building programs was a significant predictor of change in behavior of the communities in order to improve species and practice

habitat conservation. This is indicated in the P-Value of 0.001 and the Ratio (ExpB) of 5.308 (Table 8). The significant association means that the odds of seeing change in the behavior of local communities for the purpose of improving species and conserving habitats would likely increase by 5.308% if these communities would participate in capability building programs.

## Binary Logistic Analysis on Factors and Policy Formulation

**River ecosystem.** Based on the results of the Logistic Regression Analysis, involvement in mangrove reforestation programs was a significant predictor of the enforcement of and compliance with policy regulations as well as the formulation, amendments, revision, and termination of policies that concern river aquatic ecosystem (Table 8). The odds that policies would be formulated, amended, revised, or terminated were likely to increase by 3.849% if local communities would participate in mangrove reforestation programs.

## DISCUSSION

The conservation programs implemented in the aquatic ecosystems (i.e., river and mangrove) in Pampanga River were assessed in terms of their environmental, social, economic, and political outcomes.

**River ecosystem.** An assessment of the conservation programs revealed that local communities' involvement in clean-up drives and policy regulation was a significant predictor of improvement of the river and its biodiversity. Meanwhile, mangrove reforestation was found to be a significant conservation program intended for the improvement of local the communities' overall well-being. Pursuant to the implementation of the Marine Conservation and Development Program (MCDP), local communities were empowered to enforce environmental laws. The overall impact of the project was increased fish biomass and stable fishery catch as a result of the protection of the ecosystem and its biodiversity. Increased fish yields, increased fish diversity, abundance within the sanctuary areas, slightly improved coral substitute cover resulting from the use of less damaging fishing methods, and increased tourism in Apo and Sumilon Islands were some of the achievements of the program (De Jesus et al., 2008). Similar

findings were obtained as regards the implementation of the Fisheries Resource Management Project (FRMP) through mangrove rehabilitation projects that were established nationwide (De Jesus et al., 2008). In Bani, Pangasinan, an increase in fish catch from 2 kg to 3.5 kg/ day, 25 endemic and migratory bird species, and over 15 commercially important finfish and shellfish species were monitored. Based on the survey conducted in Quezon, there was an increase in fish catch from 3 kgs to 5 kgs/day. In the same survey, the respondents from Honda and Puerto Princesa Bays reported an average of 6-10 kgs catch per day.

In terms of increasing the awareness of local communities, clean-up drives and capability building programs were found to be essential conservation programs. The involvement of local communities in capability building programs would likely influence their behavior towards the improvement of species and conservation of habitats. This is consistent with the findings of the CRMP which has a capability building program component. In CRMP, local communities were capacitated with skills in monitoring marine sanctuaries and other activities to enhance their skills relative to CRM. Such activities had boosted local communities' confidence and had encouraged active participation of communities in the protection and conservation of marine sanctuary (De Jesus, et al., 2008).

Lastly, in terms of the enforcement of and compliance with policy regulations, the mangrove reforestation was found to be a significant conservation program in relation to the formulation of new policies intended for the river ecosystem. Through the involvement of local communities in the mangrove reforestation program in Sasmuan, Pampanga, the mangrove area had been declared protected and reserved. The declaration of the Sasmuan Bangkung Malapad Critical Habitat Ecotourism Area had been instrumental in the formulation of new ordinances that were being enforced in the area with the help of the local communities. Pertaining to this, Posa, Diesmos, Sodhi, and Brooks, (2008) stressed that the devolution of environmental governance to local government, through the Local Government Code of 1991, had given the local government a share in the responsibility of maintaining ecological balance and enforcing regulations within its territorial jurisdictions. Such devolution of authority had benefited organized communities by giving them control over their own resources, with the support of the local governments. This had led to the success of conservation programs.

**Mangrove Ecosystem.** Policy regulation was also a significant conservation program for the improvement of the mangrove ecosystem and its biodiversity. Involvement in clean-up drives was also vital in improving local communities' overall well-being. Clean-up drive activities that were conducted both in the vicinities of barangays and in river or mangrove areas minimized pollution. Minimizing pollution in the aquatic ecosystem had resulted in better water quality, thus providing aquatic species an environment that is conducive to growth. Fishes, crustaceans, clams, mussels, and other aquatic species could thrive and multiply in mangrove areas, hence providing increased catch for the local communities that depended on aquatic resources. There are sets of evidence from international case studies of protected area performance that show the interdependence between conservation and socio-economic outcomes.

## CONCLUSION

The study assessed the different conservation programs implemented in the aquatic ecosystems traversing Pampanga River. Binary Logistic Analysis showed which among the conservation programs would likely lead to the improvement of the environment and the economic well-being of the local communities; change in practice geared towards biodiversity conservation; and formulation of laws. However, due to limited time and financial resources, the assessment of the conservation program was limited to the analysis of the perception of the communities whose livelihood depended on the aquatic ecosystems.

Local communities should therefore be involved in mangrove reforestation, clean-up drives, and policy regulation to improve the ecosystem, its biodiversity, and the well-being of the communities. Furthermore, it is suggested that the mangrove ecosystems traversing Pampanga River should be declared as a reserve or protected area. Doing so will help restore the ecosystems as well as the biodiversity thriving on them.

Further studies should focus on the enabling mechanisms and inputs that can be provided to local communities in order to increase their awareness and promote change in behavior that would help achieve species and habitat conservation. The corporate social responsibilities of private companies such as Rice Millers in the Nueva Ecija, feed millers in Bulacan area, and



aquaculturists should be further assessed. Analyzing the commitment of these sectors will provide ideas and strategies on how they can be involved in conserving the Pampanga River.

Longitudinal studies should be conducted to assess the long-term impact of the conservation programs in terms of improving the ecosystems, promoting local communities' overall well-being, changing current practices, and formulating policies.

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# Assessment of the Diversity of Animals in Mt. Tapulao, Palauig, Zambales

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The study was conducted in order to assess the current diversity of animals in Mt. Tapulao, Palauig, Zambales. This study was concerned with the identification, determination of the conservation status, endemism, and population trend of fauna present in the area. The state of the wildlife and the sources of its decline, as well as the sources of the levels of impacts of environmental problems/degradation of forest ecosystem, were also determined. The study areas were chosen through the establishment of five stations with varying elevational gradients. Various capture methods were used to record the different vertebrate species in the area where 32 species of animals were observed. Results revealed that the birds obtained a moderate diversity index of 2.65 while mammals, reptiles, and amphibians acquired a very low diversity indices of 1.61, 1.03 and 0.56, respectively. Mt. Tapulao showed high endemism of wildlife of which 52% were Philippine endemic and 39% were native. Assessment on the status of each animal species disclosed that most of the wildlife in the study area were in the least concern category (75%) but indicated a decreasing population trend (43%). Three species were under the vulnerable category and two were considered as near threatened according to IUCN Red List of Threatened species. Moreover, DAO 2019-09 (Updated National List of Threatened Philippine Fauna and their Categories) considered four of the assessed animals as vulnerable, two of whom were listed as endangered. Mt. Tapulao's forest ecosystem was much affected by human activities. Wildlife hunting still occurred mainly as a source of food and income in the area. It was determined that road construction, wildlife hunting, soil erosion/silt runoff, and tourism areas/recreational areas were the sources of major threats to the forest ecosystem, while mining, solid waste, ecotourism and quarrying had moderate impacts on the degradation of Mt. Tapulao.

**Keywords:** Mt. Tapulao, biodiversity assessment, environmental degradation, forest ecosystem

## INTRODUCTION

The complex geological history of the Philippines has resulted in an extraordinary wealth of biodiversity which ranks the country as one of the highest in the concentration of terrestrial vertebrate life on earth (Ambal et al., 2012). The country is considered as one of the 17 megadiversity countries, as it possesses 70 to 80 percent of the global biodiversity. The country harbors more than 1,000 terrestrial wildlife species (576 birds, 172 terrestrial mammals, 101 amphibians and 258 reptiles) almost half (49%) of which are unique to this country (Balatibat, 2008). However, having the highest rates of tropical forest loss, declining from 70% down to 18% cover in the last 100 years, the forest ecosystems of the Philippines are considered as the eighth most vulnerable forest ecoregions in the world (Turner, Tamblyn, Dray, Maunder, & Raines 2003). Approximately 60% of endemic Philippine flora are now extinct, while around 128 endemic wildlife species are under various threat categories. These resources are continuously under pressure due to loss and destruction of their habitat, over-exploitation, environmental pollution, and the recent global climate change (Ong et al., 2002).

Zambales Mountain Range is identified as an Important Bird and Biodiversity Area, sub-center of mammalian diversity, and a Key Biodiversity Area (BirdLife International, 2019; UNDP-GEF, 2015; UNDP-GEF, 2012). The terrestrial KBAs are identified based on the presence of globally threatened and/or restricted-range species of freshwater fish, amphibians, reptiles, birds, mammals, and congregatory species of birds. These areas are priority sites for conservation (Ambal et al., 2012). Important Bird and Biodiversity Areas are identified as globally important sites for the conservation of bird species. They are the sites needed to ensure the survival of viable populations of most of the world's bird species (UNEP-WCMC, 2014).

Moreover, Zambales Mountain Range has been considered a high priority conservation area (Mallari, Tabaranza, & Crosby 2001). It has also been known as a sub-center of mammalian diversity on Luzon Island due to high endemism of mammalian species in the area and the discovery of two species of *Apomys* and one species of *Rhynchomys* that are endemic to the area. However, the province of Zambales has been categorized as an Important Bird Area because of the presence of several of the threatened and restricted-range species of the Luzon Endemic Bird Area (Balete, Heaney,

Veluz, & Rickart, Eric, 2009; Birdlife International, 2019). Mt. Tapulao has been declared as a Key Biodiversity Area (KBA) due to species richness and diversity in terms of flora and fauna, with 304 species of plants and 142 species of animals recorded (NewCAPP, 2013).

An inventory and assessment of the fauna of Mount Tapulao were conducted last 2012. Seven elevational gradients across different major forest types were surveyed. The sampling stations were located along the western slope of Mount Tapulao facing the China Sea. A total of 142 wildlife species were recorded during the survey. These included nine amphibians, 19 reptiles, 28 mammals and 86 birds. Among these species, 55% were endemic to the country, 17 species of which were endemic to Luzon Island and another two species were found only in Mount Tapulao and nowhere else in the world.

This study aimed to determine the diversity of animals present in Mt. Tapulao's forest ecosystem. It specifically determined the ecological parameters, conservation status, endemism, population trend, and the ecological and economic importance of the wildlife such as mammals, birds, reptiles, and amphibians in the area. The state of the wildlife, the bases of their decline, and the sources of the levels of impacts of environmental problems/degradation of forest ecosystem were also identified.

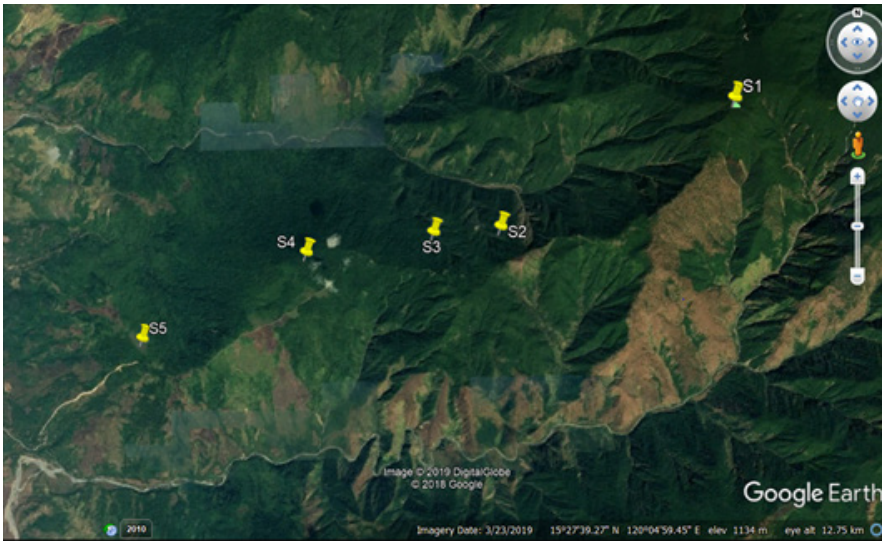
## **MATERIALS AND METHODS**

### **Study Area**

Zambales Mountain Range is situated on the west-central area of Luzon, located by the South China Sea on the west and north, the Central Plains on the east, and Subic Bay and Mt. Natib complex on the southeast. Mt. Tapulao, with 2037 m, has the highest peak on the Zambales Mountain and has an approximate total area of more than 17,000 hectares spread through the municipalities of Palauig, Iba, and Masinloc in Zambales, and small parts of Mayantoc, Tarlac (Department of Environment and Natural Resources Region 3, 2019).

The study of Ong et al., (2012) has defined Mt. Tapulao to include five different forest types: tropical semi-evergreen rainforest, tropical lowland evergreen rainforest, tropical lower montane rainforest including pine forest,

tropical upper rainforest, and tropical sub-alpine forest. These forest types serve as a habitat preference by different type of species.



**Figure 1.** The study site with the designated sampling stations  
(Source: Google Earth Pro)

## Selection of Sampling Areas

Mainly located within the Municipality of Palauig, five stations within the western slope of Mt. Tapulao were established and were set as the sampling points. This portion of the slope was chosen since it was the only accessible area within Mt. Tapulao and because the windward portion of the mountain facing China Sea brings high precipitation and humidity. The sampling sites were established from different elevations (1910 m, 1360 m, 957 m, 618 m, and 456 m). The designations of the sampling stations ensured that the different types of niches were included (Alberto, 2005).

The stations were characterized by the presence of young trees with thick forest canopy and limited sunlight that reaches the ground. The surface ground was totally covered with dried leaves. These areas had rocky and clayey terrain with elevation that ranged from 400-1900 meters above sea level. A small stream was present near Station 4. Abundant tree species in the area were *Sterculia* sp. and *Ficus* sp., which are both fruiting trees, while understory plants such as Mountain Nibong Palm, Fishtail Palm, and rattan



were also present in all the stations. The survey was conducted during the dry season of February 11 to 22, 2020. However, heavy rain occurred during the sampling at Stations 1 and 2. Temperature in the area during the conduct of the study ranged from 9 to 11 ° C.

### **Collection, Identification, and Documentation of Animal Species**

To assess the fauna present in the study area, the activity focused on the following groups of animals: mammals, birds, amphibians, and reptiles. The survey was conducted during the dry season on February 11 to 22, 2020. The animals present in each station were surveyed and recorded. Appropriate collection method for specific vertebrate group were used. Collection was conducted through the establishment of mist nets for volant mammals and birds (two mist nets per station for both bats and birds and set for two days per stations), improvised traps for reptiles and amphibians, and hand-picking for some mammals and amphibians. The traps and mist nets were set-up in their respective stations in the afternoon and were obtained the following morning. For birds, the mist nets were set-up about 6 am to 6 pm, while the net-days for birds and bats were placed from 6 pm to 6 am of the same day. Potential microhabitats (e.g., ground holes, tree holes and buttresses, fallen logs, runways along grass or forest litter) were searched for and noted. After all needed information were gathered, the captured animals were then released. The animals were also monitored through sightings, photographs, recorded sounds, and traces. The study was restricted to the available species that were caught during the season or period of the study. General observations through ocular sightings and sound recordings of birds were also done to survey other areas on Mt. Tapulao that were not covered by the stations.

Additional data gathered included the ecological and economic uses of the animals recorded. The conservation status of each species was determined based on the International Union for Conservation of Nature (IUCN) Red List Categories and DAO 2019-09 (Updated National List of Threatened Philippine Fauna and their Categories). Species endemism and their population trend were also determined.

## **Quantitative Descriptions of Animals**

Quantitative descriptions such as total number of individual species, frequency, relative frequency, density, relative density, dominance, relative dominance, importance value index, Shannon's diversity index, and percentage occurrence were determined. The formulas were adapted from Smith and Smith (1998, as cited by Alberto, 2005).

## **Sources and Level of Impacts of Environmental Degradation of Mt. Tapulao**

In order to obtain information regarding Mt. Tapulao, focus group discussions (FGD) and key informant interviews (KII) were conducted. The FGDs and KIIs with semi-structured questionnaires were used to gather additional information on the the community's utilization of the resources provided by Mt. Tapulao, specifically the mountain's socio-economic influence on the community. These methods also aided in identifying problems that affected the wildlife status in the area and the possible sources of the wildlife's decline. To confirm the results from the KII and FGDs, firsthand information on the present environmental degradation were also generated through observation and documentation.

To assess the present condition of the forest ecosystem, and the sources and level of impacts on environmental degradation, a checklist adapted from Alberto (2005) was utilized to generate secondary data. To determine the present condition of the forest ecosystem, the checklist was rated using the values 1-4 by seven evaluators from DENR, researchers, and LGUs that were familiar with Mt. Tapulao. Four levels of impact in each source of environmental degradation were identified. A value was assigned to each level. Then, the level of impact was estimated based on the percentage of impact or damage in the study area. To determine the mean of the respondents' answers, the sum of the answers for each level was divided by the total number of respondents. To interpret the scores, a scale measuring the level of impact of the environmental degradation on the ecosystem was used. Firsthand information from the respondents and from the checklist were compared and consolidated.

## RESULTS AND DISCUSSION

### Assessment of Fauna in Mt. Tapulao, Palauig, Zambales

A total of 32 wildlife species present in the forest ecosystem of Mt. Tapulao were identified and evaluated. Among these species, eight belonged to Class Mammalia, 18 were under the Class Aves, four were from Class Reptilia and two were from Class Amphibia. Results revealed that among the mammals, *Rattus everetti* (Philippine Forest Rat) had the highest importance value index which was 46.7%. This indicates that this mammalian species was the most common among the 32 observed species of wildlife in the forest ecosystem of Mt. Tapulao. In the Class Aves, *Turdus merula* (Eurasian Blackbird) got the highest IVI at 33.69%, while among the amphibians, *Limnonectes parvus* (Philippine Small-disked Frog) obtained the highest IVI at 7.60%. Both *Cyrtodactylus philippinus* (Philippine Bent-toed Gecko) and *Eutropis multifasciata* (Common Sun Skink) garnered the highest importance value index (7.53%) on the reptile category (Table 1).

There were no major threats to *Rattus everetti* population, for this had been found to be competitively superior to the introduced *Rattus* species. *Rattus everetti* is endemic to the Philippines as it is widespread throughout its range. It is also presumed to have a large population and a tolerance for a wide range of habitats. Moreover, *Rattus everetti* is most common in primary and disturbed lowland, montane, and mossy forests, according to Heaney, Alviola, Duya, Tabao, Gonzalez, and Baleta (2016). Meanwhile, *Turdus merula* inhabits a very wide range of habitats, from forests to grassy areas. This species can be sedentary, partially migratory, and fully migratory, depending mainly on latitude (BirdLife International, 2016). *Limnonectes parvus* is endemic in the Philippines. It inhabits undisturbed and disturbed streams and rivers in lower montane and lowland forests. It can also be found in swamps, seeps, and wide, slow-moving streams (IUCN SSC Amphibian Specialist Group, 2018). *Cyrtodactylus philippinus* is also endemic to the Philippines and has been recorded from a wide variety of microhabitats. This species seems to congregate in suitable habitats close to rivers and streams (Brown, Gaulke, & Rico, 2009). Moreover, *Eutropis multifasciata* species is native in the Philippines and dwells in primary and secondary forests and open areas. It is often found on open forest floors, forest edges, stream-beds, and other degraded areas. This species

is also found around human settlements (Chakma, 2015).

Previous studies in the area recorded a total of 142 wildlife species which included nine amphibians, 19 reptiles, 28 mammals, and 86 Birds (Ong et al., 2012). The lower number of recorded species in this current study is attributed to fact that the sampling period was on a dry season. This means that the low temperature in the area during the conduct of the study was also an influencing factor.

**Table 1**

*Number of Individuals, Relative Frequency, Relative Density, Relative Dominance and Importance Value Index of Animals in Mt. Tapulao*

Common Name	Scientific Name	No. of Individuals	Relative Frequency	Relative Density	Relative Dominance	Importance Value Index
<b>MAMMALS</b>						
Lesser Dog-faced Fruit Bat	<i>Cynopterus brachyotis</i>	1	2.33	1.124	0.000	3.449
Greater Musky Fruit Bat	<i>Ptenochirus jagori</i>	2	2.33	2.247	0.633	5.206
Mt. Tapulao Forest Mouse	<i>Apomys brownorum</i>	1	2.33	1.124	0.000	3.449
Tapulao Shrew-Rat	<i>Rhynchomys tapulao</i>	1	2.33	1.124	0.000	3.449
Philippine Forest Rat	<i>Rattus everetti</i>	10	6.98	11.24	28.490	46.70
Asian Civet Cat	<i>Paradoxurus hermaphroditus</i>	5	11.60	5.618	6.330	23.580
Philippine Warty Pig	<i>Sus philippensis</i>	2	2.33	2.247	0.633	5.206
Philippine Brown Deer	<i>Rusa marianna</i>	1	2.33	1.124	0.000	3.449
<b>BIRDS</b>						
Philippine Cuckoo Dove	<i>Macropygia phasianella</i>	1	2.33	1.124	0.000	3.449
Eurasian Blackbird	<i>Turdus merula</i>	8	6.98	8.989	17.720	33.690
Philippine Eagle-Owl	<i>Bubo philippensis</i>	3	4.65	3.371	1.899	9.921
Brahminy Kite	<i>Haliastur indus</i>	1	2.33	1.124	0.000	3.449
Luzon Tarictic Hornbill	<i>Penelopides manillae</i>	4	2.33	4.494	3.798	10.620
Lesser Coucal	<i>Centropus bengalensis</i>	1	2.33	1.124	0.000	3.449
White-eared Brown Dove	<i>Phapitreron leucotis</i>	2	2.33	2.247	0.633	5.206
Red Jungle Fowl	<i>Gallus gallus</i>	1	2.33	1.124	0.000	3.449

White-breasted Wood Swallow	<i>Artamus leucorhynchus</i>	3	2.33	3.371	1.899	7.595
Tri-colored Munia	<i>Lonchura leucogastra</i>	1	2.33	1.124	0.000	3.449
Pacific Swallow	<i>Hirundo tahitica</i>	7	2.33	7.865	13.29	23.480
Eurasian Tree Sparrow	<i>Passer montanus</i>	2	2.33	2.247	0.633	5.206
Grey-backed Tailorbird	<i>Orthotomus derbianus</i>	3	2.33	1.124	1.899	7.595
Philippine Bulbul	<i>Hypsipetes philippinus</i>	6	2.33	6.742	9.495	18.56
Luzon Scops Owl	<i>Otus longicornis</i>	3	2.33	6.742	1.899	7.595
Buff-spotted Flameback	<i>Chrysocolaptes lucidus</i>	4	2.33	3.371	3.798	10.620
Brush cuckoo	<i>Cacomantis variolosus</i>	3	2.33	4.494	1.899	7.595
Buff-spotted Flameback	<i>Chrysocolaptes lucidus</i>	4	2.33	4.494	3.798	7.595
Pipit	<i>Unidentified</i>	3	2.33	3.371	1.899	7.595
<b>REPTILES</b>						
Philippine Bent-toed Gecko	<i>Cyrtodactylus philippinicus</i>	2	4.65	2.27	0.633	7.531
Tokay Gecko	<i>Gekko gekko</i>	1	2.33	1.14	0.000	3.449
Yellow-headed Water Monitor	<i>Varanus marmoratus</i>	1	2.33	1.14	0.000	3.449
Common Sun Skink	<i>Eutropis multifasciata</i>	2	4.65	2.27	0.633	7.531
<b>AMPHIBIANS</b>						
Philippine Small-disked Frog	<i>Limnonectes parvus</i>	3	2.33	3.41	1.899	7.595
Luzon Fanged-frog	<i>Limnonectes macrocephalus</i>	1	2.33	1.14	0.000	3.449
<b>Total</b>		<b>89</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>300</b>

## Diversity Indices of the Fauna Present in the Forest Ecosystem of Mt. Tapulao, Palauig, Zambales

The animal diversity assessment revealed that the birds had a moderate diversity index of 2.65, while mammals, reptiles, and amphibians had very low diversity indices of 1.61, 1.03 and 0.56 respectively. This is different from the study of Ong et al., conducted in 2012 which showed a high number of recorded and diverse species.

The very low diversity of herpetofauna and mammalian species is attributed to the anthropogenic factors that were present in the area such

as wildlife hunting and the recent development of tourism that might have driven away the animals to other parts of Mt. Tapulao and of the mountain chain. Tourism had various negative effects on animal populations, behaviors, and welfare. It is well-noted that activities associated with tourism may have led to the disruption of activities, direct killing or injury, and habitat alternation (Green & Higginbottom, 2001). Meanwhile, the bird's moderate diversity may have been caused by the rich vegetation and habitat structure in the forest ecosystem.

Among the five stations, Station 2 had the highest percentage occurrence of animals in the area at 54.54%, while Station 5 had the least occurrence as there were no animals recorded in the area. Station 2 was located at 1360 masl. and mostly consisted of young trees with undergrowth plants. This area had a thick forest canopy with limited sunlight that reached the ground. The surface ground was totally covered with dried leaves. According to Bertuzzo et al., (2016) and Malonza (2015), biodiversity typically peaks at mid-altitudes due to different factors such as low temperatures at high elevations and the human disturbance further down. The lowest number of species was discerned from Station 5 because this station was the nearest to the community and was thus prone to human disturbances. Moreover, it had the least elevation at 456 masl. Fewer trees and anthropogenic disturbances such as logged trees were more commonly observed in this area compared to other stations. In comparison to the previous study of Ong et al. (2012), species richness of birds, bats, amphibians, and reptiles was the highest ranging from 600m to 896m in the tropical lowland and evergreen rainforest, while species richness of small mammals, such as rodents, increased with elevation.

**Table 2**

*Diversity Indices of Four Major Vertebrates in Mt. Tapulao, Palauig, Zambales*

Class	No. Of individuals	Diversity index	Interpretation
Birds	33	2.67	Moderate
Mammals	22	1.61	Very Low
Reptiles	6	1.37	Very Low
Amphibians	4	0.56	Very Low

## Conservation Status and Endemism of the Animal Species Present in the Forest Ecosystem of Mt. Tapulao

An assessment of the status of each species as shown in Table 3 revealed that most of the wildlife in the study area were in the least concern category (75%) of IUCN. This indicates that wildlife in this area was still widespread and abundant. However, a decreasing population trend was also observed mostly with the assessed wildlife (43%). This indicates that proper conservation and management must be in order (Figure 2). This is in line with the statement of the locals about the recently observed decline in majority of the recorded animals that, reportedly, were rarely or no longer seen anymore in the area.

Two mammalian species and one bird (*Sus philippinensis*, *Rusa marianna* and *Bubo philippinensis*) were found to be in the vulnerable category based on IUCN. These species were therefore facing a high risk of extinction in the wild. *Limnonectes macrocephalus* (Luzon Fanged Frog) and *Otus longicornis* (Luzon Scops Owl) appeared to be under the Near Threatened category of IUCN. Based on DAO 2019-09, *R. marianna*, and *B. philippinensis* were under the endangered category, while ***Rhynchomys tapulao***, ***S. philippinensis***, ***Penelopides manillae***, and *Otus longicornis* were considered as vulnerable. Thus, these species were under threat from adverse factors throughout their range. The following are categorized as Other Threatened Species (OTS): *Apoyms brownorum*, *Gekko gekko*, *Varanus marmoratus*, and *Limnonectes macrocephalus*. OTS were also under threat from the adverse factors throughout their range and were likely to move to the Vulnerable category in the near future. The habitat of these endangered, threatened, vulnerable, and other threatened species must be given high priority in terms of protection and conservation.

It was observed that out of the identified wildlife, 52% (16 species) were found only in the Philippines, 39% or 10 species were native, only two species (6%) were under the introduced category, and only one was an unknown endemism in the country. Among the endemic species observed in this study, 10 wildlife species were found within the Philippine archipelago. Four of them were restricted to Luzon Island, and two species were present only in Mt. Tapulao alone and nowhere else in the world (Figure 3). A total of 142 wildlife species were recorded during the survey. Among these, 55% were

endemic to the country, 17 species of which were endemic to Luzon Island, and another two species (Mt. Tapulao Forest Mouse and Tapulao Shrew-Rat) were found only in Mount Tapulao and nowhere else in the world.

**Table 3**

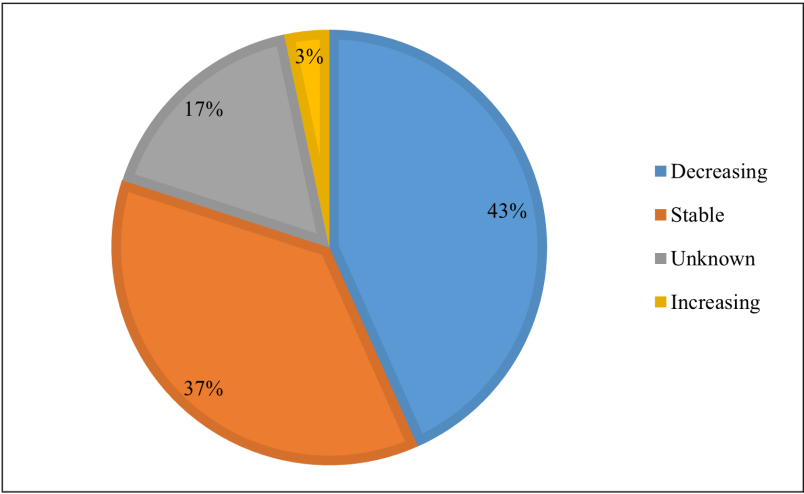
*Summary of Assessed Wildlife Present in Mt. Tapulao and their Conservation Status, Endemism and Population Trend*

Common Name	Scientific Name	IUCN	DAO 2019-09	Endemism	Pop. Trend
<b>MAMMALS</b>					
Lesser Dog-faced Fruit Bat	<i>Cynopterus brachyotis</i>	LC	Not listed	Native	Unknown
Greater Musky Fruit Bat	<i>Ptenochirus jagori</i>	LC	Not listed	Philippine endemic	Stable
Tapulao Forest Mouse	<i>Apodymys brownorum</i>	DD	Not listed	Site endemic	Unknown
Tapulao shrew rat	<i>Rhynchomys tapulao</i>	DD	Not listed	Site endemic	Unknown
Philippine Deer	<i>Rusa marianna</i>	VU	VU	Philippine endemic	Decreasing
Philippine Warty Pig	<i>Sus philippinensis</i>	VU	VU	Philippine endemic	Decreasing
Common Palm Civet	<i>Paradoxurus hermaphroditus</i>	LC	Not listed	Unknown	Decreasing
<b>BIRDS</b>					
Philippine Cuckoo-dove	<i>Macropygia tenuirostris</i>	LC	Not listed	Native	Stable
Eurasian Blackbird	<i>Turdus merula</i>	LC	Not listed	Introduced	Increasing
Philippine Eagle-Owl	<i>Bubo philippensis</i>	VU	VU	Philippine endemic	Decreasing
Brahimny Kite	<i>Haliastur indus</i>	LC	EN	Native	Decreasing
Luzon Hornbill	<i>Penelopides manillae</i>	LC	Not listed	Luzon endemic	Decreasing
Lesser Coucal	<i>Centropus bengalensis</i>	LC	Not listed	Native	Decreasing
White-eared Brown Dove	<i>Phapitreron leucotis</i>	LC	Not listed	Philippine endemic	Stable
Red Junglefowl	<i>Gallus gallus</i>	LC	Not listed	Native	Decreasing
White-breasted Woodswallow	<i>Artamus leucorhynchus</i>	LC	Not listed	Native	Stable
White-bellied munia	<i>Lonchura leucogastra</i>	LC	Not listed	Native	Stable
Pacific Swallow	<i>Hirundo tahitica</i>	LC	Not listed	Native	Unknown

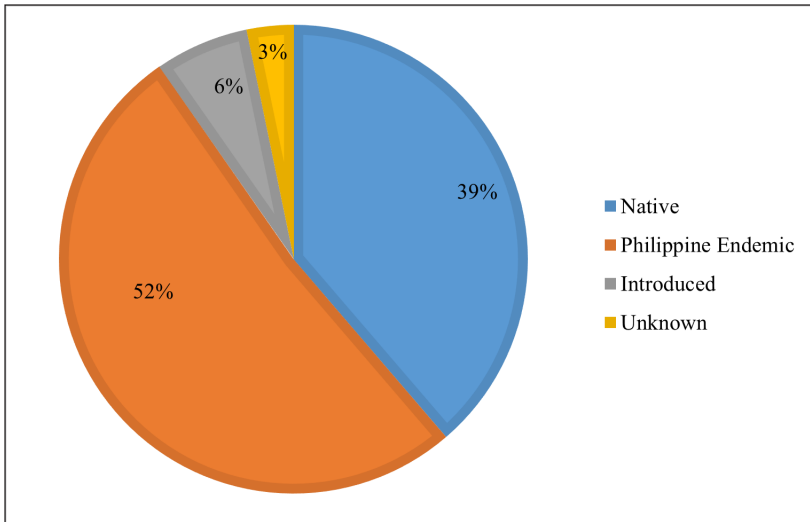


Eurasian Tree Sparrow	<i>Passer montanus</i>	LC	Not listed	Introduced	Decreasing
Grey-backed Tailorbird	<i>Orthotomus derbianus</i>	LC	Not listed	Luzon endemic	Stable
Luzon Island Scops-Owl	<i>Otus longicornis</i>	NT	EN	Luzon endemic	Decreasing
Brush Cuckoo	<i>Cacomantis variolosu</i>	LC	Not listed	Native	Stable
Philippine Bulbul	<i>Hypsipetes philippinus</i>	LC	Not listed	Philippine Endemic	Stable
Buff-spotted Flameback	<i>Chrysocolaptes lucidus</i>	LC	Not listed	Native	Decreasing
REPTILES					
Tokay Gecko	<i>Gekko gekko</i>	LC	Not listed	Native	Unknown
Bent-toed Gecko	<i>Cryodactylus philippinensis</i>	LC	Not listed	Philippine Endemic	Stable
Philippine water monitor	<i>Varanus marmoratus</i>	LC	VU	Philippine endemic	Stable
Common Sun Skink	<i>Eutropos multifasciata</i>	LC	N/A	Native	Stable
AMPHIBIANS					
Philippine Small-disked frog	<i>Limnonectes parvus</i>	LC	Not listed	Philippine endemic	Decreasing
Luzon Fanged-frog	<i>Limnonectes macrocephalus</i>	NT	Not listed	Philippine endemic	Decreasing

**\*Note:** LC=Least Concern, NT=Near Threatened, VU=Vulnerable, EN=Endangered, DD=Data Deficient



**Figure 2.** Population trend of the observed animal species present in Mt. Tapulao



**Figure 3.** The endemism composition of wildlife species assessed in Mt. Tapulao

### **Ecological and Economic Importance of the Present Fauna in Mt. Tapulao**

The ecological roles of the fauna, as defined by numerous studies, mostly consisted in biological control of insects (18 species) and seed dispersal (13 species). Other wildlife played their role in the ecosystem through predation (4 species), pollination (4 species), serving as bio-indicator (2 species), decomposition (1 species), parasite hosting (1 species), and habitat protection (1 species). Most of the animals assessed were economically important. They were an important source of food (18 species) and were raised as pets and used in trade (16 species). Some birds were targets for sports hunting (4 species) and served as natural pest control (2 species). Other animals were utilized in the practice of religious beliefs (2 species), medicine (1 species), and ecotourism (1 species). Two animals still had unknown economic importance (Alberto, 2015; Severson, 2002; Tanalgo & Tabora, 2015; Scheffers et al., 2012; BirdLife International, 2016; BirdLife International, 2017; Salibad & Nuñez, 2014). The high number of seed dispersers may have been one of the main attributions to the rich vegetation in the area. It was well-noted from the study of Corlette (2016) that animals had a great role in the forest and its processes, for they were responsible for most pollination, seed dispersal, and herbivory. Animals were also found to have a major contribution to decomposition and

nutrient cycling. Carnivores also have had an influence on these processes through their impacts on their prey, thereby balancing the ecosystem.

**Table 4**  
*Ecological and Economic Significance of Animals Present in Mt. Tapulao*

Ecological Importance	Number
Biological control of insects	18
Seed dispersers	13
Predation	4
Pollination	4
Bio-indicator	2
Decomposition	1
Parasite host	1
Habitat protection	1
Total	44
Economic Importance	Number
Source of food	18
Pet and trade	16
Sports hunting	4
Pest control	2
Religious belief	2
Medicine	1
Ecotourism	1
Unknown	42
Total	44

**State of Wildlife and Sources of its Decline**

Focus group discussions (FGDs) and key informant interviews were conducted in the community. Specifically, the FGDs and interviews involved mountain guides, members of ATIP, and representatives from the local government units and people’s organization in order to gather first-hand information on the current threats on the biodiversity in the area, environmental issues present in Mt. Tapulao, and the causes of these concerns.

Mt. Tapulao has a rich wildlife. Locals of Sitio Dampay, the nearest community to Mt. Tapulao, had observed different types of wildlife in

the area. Having a total of 142 species of amphibians, reptiles, birds, and mammals, Mt. Tapulao was well-note in the study of Ong et al., (2012) for its diverse wildlife. It had also been known that mountain habitats sustained a high proportion of Philippine species (Peh et al., 2011; Mallari, Tabaranza, & Crosby, 2001). Moreover, the locals of Sitio Dampay also noted that they did not perceive a decline in wildlife in Mt. Tapulao.

### **Assessment on the Environmental Problems and Sources of Degradation in Mt. Tapulao**

The forest of Mt. Tapulao was continuously threatened by human activities. It was discerned that road construction, wildlife hunting, soil erosion/silt runoff, and tourism area/ recreational area posed major threats to the forest ecosystem. Meanwhile, mining, solid waste, ecotourism, and quarrying had moderate impacts on the degradation of Mt. Tapulao. Illegal logging, fires, charcoal making, shift cultivation/kaingin, and firewood collection had small impacts, albeit should not be overlooked (Table 4).

Activities related to road construction had led to cutting of trees and clearing of the vegetations along the constructed pathways. Wildlife hunting also occurred in the area as a source of income. This economic benefit of wildlife must be carefully weighed against its impacts on wildlife populations (Fa & Brown, 2009) as unregulated hunting can severely affect wildlife populations, particularly in the tropics (Scheffers et al., 2012). As observed by the locals, a good number of wild animal species were rarely seen or were no longer visible in the area. The locals were aware that poaching of these animals as a source of food and income, raising them as pets, and using them for medicinal purposes had caused the decline in the population of these animals. Wild animals were captured not only for local food consumption but were also mostly sold for their meat or were used in pet trade for additional income. The species that were most affected by hunting were warty pigs and deer. The locals also emphasized that the main reason for wildlife hunting was the need to generate income. Wildlife hunting was still rampant and it was driven by both direct consumption and sale as some people of Palauig would still buy warty pigs and deer meat for consumption. Indeed, hunting plays a pivotal role in many cultures and communities. In many less-developed regions, hunting for bushmeat provides people with

relatively inexpensive food and some income (Brashares et al., 2004). It was noted by Corlett (2011) that hunting is a major threat to vertebrates in both intact and logged forests.

Furthermore, the aforementioned activities such as mining, kaingin, illegal logging, and the establishment of trails were deemed as the possible reasons for the incidents of soil erosions. Locals also reported that the increasing human population in the area was also an influencing factor. Numerous participants noted that wild animals had been recently more detached from their original habitat due to human activities that had caused disruption in the natural environment and the recent establishment of tourism in the area. These activities had led to the constriction of wildlife habitats and consequently to the migration of certain species to other parts of Mt. Tapulao or of the mountain range. It was observed during the study that the animals, specially the birds, tended to transfer locations when they detected the presence of people. In many developing countries, tourism is widely acknowledged as a means of stimulating local economic development (Geneletti & Dawa, 2009). However, if not given enough attention and preclusion, tourism can lead to the depletion of resources that may consequently bring about changes in the ecosystem and in the local community.

**Table 5**

*Sources and Level of Impacts of Anthropogenic Activities in Mt. Tapulao's Forest Ecosystem*

Sources of Environmental Degradation	Computed Value	Interpretation
Road construction	3.99	Major Impact
Wildlife hunting	3.62	Major Impact
Soil erosion/silt runoff	3.54	Major Impact
Tourism Area/Recreational Area	3.37	Major Impact
Mining	3.12	Moderate Impact
Solid Waste	2.86	Moderate Impact
Ecotourism	2.80	Moderate Impact
Quarrying	2.53	Moderate Impact
Illegal logging	2.25	Small Impact

Fires	2.16	Small Impact
Charcoal making	2.14	Small Impact
Shift cultivation/Kaingin	2.12	Small Impact
Firewood collection	1.99	Small Impact

## CONCLUSION

There is a moderate diversity of birds and very low diversity of mammals, reptiles, and amphibians in the forest ecosystem of Mt. Tapulao. Among the assessed wildlife in the area, *Rattus everetti* showed to be the most significant. Two mammalian species and one bird species showed to be in the vulnerable category according to IUCN, while one amphibian and one bird species were considered as near-threatened.

According to DAO 2019-09, two species were considered as endangered, four were vulnerable, and four were OTS. A decreasing population trend was observed from the 43% of the assessed wildlife in Mt. Tapulao, and more than half of them (52%) were endemic in the country. The ecological roles of the fauna observed in Mt. Tapulao were mostly in the form of biological control of insects and seed dispersal. The fauna were also economically important as source of food and as pets. They were also used in trade. Furthermore, the area was constantly threatened by human activities like road construction, and wildlife hunting for consumption and income generation. Moreover, soil erosion/silt runoff, and tourism also threatened the area. These threats must not be ignored. Mt. Tapulao as a Key Biodiversity Area can help the government and stakeholders prioritize conservation actions and devise geographically specific strategies that protect individual species and safeguard representative habitats in Zambales which is dubbed as a sub-center of mammalian diversity in the Luzon Island and as an Important Bird Area. Zambales is considered as a high priority conservation area (UNDP-GEF, 2012).

## RECOMMENDATIONS

In the light of the findings of this research, the following recommendations are given:

1. conduct wildlife diversity assessment on different periods of the year

- such as the wet season;
2. carry out assessment and monitoring of wildlife in other parts of Mt. Tapulao and Zambales Mountain Range; and
  3. perform DNA analysis on animals present in the area for accurate and proper identification of species.

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# Significant Records of Birds in Smaller Islands in Palawan, Philippines

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We documented, for the first time, the birds of Cambari Island and Green Island Bay in Palawan from May 2016 to January 2020. Using a combination of direct observations, area search and photo-documentation, we recorded a total of 64 birds including three threatened species, three near-threatened birds and 22 migrants. Species composition varied between islands and bird diversity ranged from 1.14 – 2.85 (Shannon-Weiner Index). Puerco Island (popularly known as Banwa Private Island) serves as an important breeding habitat of the Near-endemic Philippine Scrubfowl *Megapodius cumingii* and Mantanani Scops Owl *Otus mantananensis*. Small islands with beach forest and mudflats serve as temporary refuge for migratory species including rare and threatened species. Protection of breeding habitats and integration of native beach forests trees increased bird species richness.

**Keywords:** Mantanani, Cambari, *Megapodius*, Banwa Private Island

## INTRODUCTION

Small islands play an important role in the conservation birds (Allen 2020; del Hoyo et al.; 2014, Kennedy et al., 2000). Two near-endemic Philippine birds are known to depend on small islands for their survival e.g., Philippine Scrubfowl *Megapodius cumingii cumingii* and the Mantanani Scops Owl *Otus mantananensis mantananensis* (Allen 2020; Jakosalem et al., 2019; Bashari et al., 2017; Sloan 2017; Dekker et al., 2000; Kennedy et al., 2000). The *O. mantananensis* is distributed on smaller islands from Tawi-Tawi to

Palawan, Mindoro, and as far as Sibuyan Island (Allen 2020; Jakosalem et al., 2019; Kennedy et al., 2000). The *M. cumingii* breeds and raise their young in the coastal areas and in small islands (Bashari et al., 2017; Sloan 2017; Dekker et al., 2000; Kennedy et al., 2000).

The coastal mudflats, mangroves, and beach forests in small Islands also serve as temporary refuge for thousands of migrating birds passing through the East-Asian Australasian Flyway (Allen 2020; Jensen & Sonco, 2016; Kennedy et al., 2000) and Philippines is located right in the middle of the flyway (Jakosalem et al., 2019; Li et al., 2007; Mullarney et al., 2001; Kennedy et al., 2000). The archipelago is sometimes used as a staging point for migrating birds to and from Borneo (Koike et al., 2016). At least 140 species regularly visit, and 138 vagrant birds are occasionally recorded. Of the 278 migrants, seven are threatened with extinction: IUCN Critically Endangered Christmas Frigatebird *Fregata andrewsi*, IUCN Endangered Far Eastern Curlew *Numenius madagascariensis*, IUCN Endangered Great Knot *Calidris tenuirostris*, IUCN Vulnerable Chinese Egret *Egretta eulophotes*, and the IUCN Near-threatened (DENR Vulnerable) Malay Plover *Charadrius peronii* (IUCN, 2020).

The available information on bird diversity on smaller islands in the Philippines is scanty (Alcala & Sanguila, 1969; Jakosalem et al., 2002; King et al., 2004; Paguntalan et al., 2004; Matillano et al., 2008; Gonzalez et al., 2010; Bucol et al., 2011; Tabayag & Cruz, 2013; Jensen et al., 2015; Jensen & Sonco, 2016) as historical records are limited to collections that date back to over a century ago (Kennedy et al., 2000; Jensen & Sonco, 2016). There are even fewer studies of birds in Palawan (Alviola, 1997; Gonzalez et al., 1997; Balatibat 2008; Paguntalan et al., 2008; Mallari et al., 2011; Bernardo, 2017) and most of them focus on threatened species e.g., Philippine Cockatoo (Widmann et al., 2008a; Widmann et al., 2008b), Philippine Scrubfowl (Matillano et al., 2008; Tabayag & Cruz, 2013), Palawan Peacock Pheasant (Brooks & Miranda 2015). The available publications on birds of islets centered on Caganyancillo and were largely based on the collection of specimens from a century ago. The visit of McGregor (1904) in 1903 followed by Worcester (1911) provided the first description of the seabird colony in the Tubbataha Reefs. Over a long period, no studies had been conducted on the small islands of Cagayancillo until the ornithological visits by the Haribon Foundation for Conservation of Natural Resources (1981), Cruz and White (1989), Arquiza and White (1999), Heegard and Jensen (1992), Manamtam (1996) and Jensen and Sonco (2016).

Birds dependent on coastal beaches and small islands are vulnerable to climate breakdown and urban development (Allen, 2020; Kennedy et al., 2000; Ma et al., 2019; Zhang & Ouyang, 2019). The landscape of Palawan has significantly changed in the last two decades including Green Island Bay. A full profile of the bird species in the five islands provides pertinent information needed for future small island management. This study is also the first documentation of the bird species composition and diversity of Green Island Bay and Cambari Island in Palawan, Philippines.

## METHODS

We visited four of the 11 islands in Green Island Bay in Roxas, namely, Small Pagbo Island, Johnson Island, Modessa (also called Reef) Island, and Puerco Island (also known as Banwa Private Island from 2016 to 2019 (see Figure 1). A total of 63 observation hours were spent in all islands: four hours in Small Pagbo Island, six hours in Johnson Island, 14 hours in Modessa, and 36 hours in Puerco Island. Surveys were also conducted in Cambari Island in Araceli, Palawan from 22-23 May 2019 where six hours were spent observing birds.



**Figure 1.** Map of Palawan showing the survey sites

## Site Description

**Modessa Island.** Modessa Island (10017'0.5" N; 119027'4.3" E), also known as Reef Island, is relatively flat, surrounded by white sand, and dominated by *Cocos nucifera*. The southern section was developed into a resort, while the

remaining part of the island remained undeveloped. During low tide, sand bars were exposed around the island. Visits were conducted from 22-24 June 2017.

**Puerco Island.** Puerco Island (10019'7.8" N; 119028' 53.8" E) is a 6.2 ha island also known as Banwa Private Island. It is pear-shaped and flat, and used to be dominated mainly by *Cocos nucifera* but had since been replanted with native plants and beach forest associated trees. A 200 square meter beach forest was created as a Tabon Breeding Sanctuary. Surveys were conducted from 14-16 May 2016; 27-29 June 2017; 9-18 March 2018; 14-18 May 2018; 16-18 October 2018; 19 and 26 March 2019; 9, 11, 16, and 24 May 2019; 7, 16, 21, and 28 June 2019; 11, 18, and 25 July 2019; 2, 8, 15, and 22 August 2020; 2-6, 10, 17, and 24 September 2019; 8, 15, and 23 October 2019; 8 and 18 November 2019; and 9, 26 March 2020.

**Pagbo Island.** Pagbo Island (10017'10.3" N; 119021'51.1" E) is a coralline island (estimated at three hectares) mostly dominated by mangroves with at least one household on the western section. The island is mostly underwater with a small section exposed during high tide. A colony of over 50,000 flying foxes roosts on the mature *Rhizophora* in the island. Visits were conducted on 16 March 2017; 12 August 2018; and 4 October 2019. **Johnson Island** (10015'2.9" N; 119023'7.4" E) is a flat island located south of Modessa and east of Pagbo Island with highest elevation at six meters. Johnson Island is mostly dominated by *Cocos nucifera* and has a small community of fisherfolks living on the island. A rock outcrop in the southern section gets connected with a narrow sand bar that is exposed during low tide. An estimated 30-hectare mudflat with seagrass beds surround the island. *Rhizophora* mangrove trees of about a meter tall grow on top of the seagrass beds. Visits were conducted on 16 December 2018 and 3 October 2019.

**Cambari Island.** Located off the coast of Araceli Island municipality in Palawan, Cambari Island (100 32' 56" North; 1200 5' 36" East) is a crescent-shaped, rocky island that rises up to eight meters of elevation. It is surrounded by coral reefs and has a very narrow and small beach area. No humans inhabited the island and there was no surface water. The island was mostly barren, and stunted native trees clung to the rocky outcrops along deep crevices running along the cross section of the entire length of the island. Average height of the trees was six meters. Surveys were conducted on 23-24 May 2019.

**Bird Observations.** Bird observations were conducted from March 2017 to December 2019 (with GP Permit # 2019-15 from Palawan Council for Sustainable Development). We used a modified version of the *Area Search* method in monitoring bird populations (Dunn et al., 2006). Using a 10 x 42 roof-type binoculars and a 20 x 60 spotting scope, observers walked around each island during low tide to list down and count the birds seen and heard calling on mudflats. Purposive searches were also conducted in clusters of beach forest trees, coconut stands, mangroves, and rocky sections of the islands. The Field Guide to the Waterbirds of ASEAN (Lee et al., 2018), Jakosalem et al. (2019) and Kennedy et al. (2000) were used as reference in identifying species. We also visited the islands at night to search for nocturnal birds.

## Comparison of Diversity

Species richness is defined in this study as the number of species present in an area. In comparing bird diversity, we used the Shannon – Weiner's index of diversity formula:

$$H' = - [\sum P_i \cdot \ln(P_i)]$$

where  $H'$  was the diversity index,  $P_i$  was the proportion of each species in a sample, and  $\ln(P_i)$  was the natural logarithm of this proportion. In comparing the similarity of the population size of each species, the proportion of the distribution of the individuals among different species, Evenness ( $J'$ ) was calculated using the ratio of the observed diversity to maximum diversity using the equation:

$$J' = H'/H_{\max}$$

where  $H'$  is the Shannon-Wiener Diversity Index and  $H_{\max}$  was the natural log of total number of species.

## RESULTS

A total of 64 species of birds were recorded of which three were threatened, three were near-threatened, 22 were migratory, and 42 are native to the Philippines (Table 1). The threatened birds included the IUCN Endangered Far Eastern Curlew and Great Knot as well as the Vulnerable Chinese Egret *Egretta eulophotes*. The Near-threatened species included the Eurasian Curlew *Numenius phaeopus*, Grey-tailed tattler, and Mongolian Plover *Charadrius peronii*. Among the native species, the breeding residents included the Philippine Scrubfowl, Mantanani scops owl, Barred Rail *Hypotaenidia torquatus*, Glossy starling *Aplonis panayensis*, Garden sunbird *Cinnyris jugularis*, Pacific Reef Egret (dark and white phase) *Egretta sacra*, Collared Kingfisher *Todiramphus chloris*, Glossy Swiftlets *Collocalia esculenta*, and Black-headed Munia *Lonchura atropurpurea*.

**Table 1**

*List of Bird Species Recorded from 2014-2019* (Note that \* - migratory bird; Nt – Near threatened; Vu – Vulnerable; En – Endangered)

Species Name	Pagbo	Modessa	Cambari	Johnson	Puerco
Lesser Frigatebird <i>Fregata ariel</i>					1 (0.002)
Brown Booby <i>Sula leucogaster</i>					1 (0.002)
Barred Rail <i>Gallirallus torquatus</i>		4 (0.02)	3 (0.02)		19 (0.05)
Philippine Scrubfowl <i>Megapodius cumingii</i>		4 (0.02)			80 (0.22)
Pacific Reef Egret (dark phase) <i>Egretta sacra</i>	1 (0.007)	6 (0.03)	2 (0.01)	4 (0.009)	12 (0.03)
Little Egret <i>Egretta garzetta</i>	2 (0.014)	7 (0.035)	1 (0.009)	24 (0.05)	7 (0.02)
*Chinese Egret <i>Egretta eulophotes</i> (Vu)		2 (0.01)		64 (0.15)	6 (0.017)
Intermediate Egret <i>Egretta intermedia</i>		1 (0.005)		32 (0.07)	2 (0.005)
Great Egret <i>Egretta alba</i>		1 (0.005)		21 (0.049)	1 (0.005)
Great-billed Heron <i>Ardea sumatrana</i>		1 (0.005)			1 (0.005)
Striated Pond Heron <i>Butorides striatus</i>	1 (0.003)	6 (0.03)		4 (0.009)	9 (0.025)



Black-crowned Night Heron <i>Nycticorax nycticorax</i>	2 (0.006)			3 (0.008)
Cattle Egret <i>Bubulcus ibis</i>				1 (0.005)
Black-winged Stilt <i>Himantopus himantopus</i>				1 (0.005)
White-bellied Sea-eagle <i>Haliaeetus leucogaster</i>		1 (0.009)		1 (0.005)
Osprey <i>Pandion haliaetus</i>				1 (0.005)
Malay Plover <i>Charadrius peronii</i> (Nt)	2 (0.01)			1 (0.002)
*Lesser Sand Plover <i>Charadrius mongolus</i>	1 (0.005)		31 (0.072)	3 (0.008)
*Greater Sand Plover <i>Charadrius leschenaultii</i>	2 (0.01)		34 (0.079)	2 (0.005)
*Whimbrel <i>Numenius phaeopus</i>	1 (0.003)	1 (0.005)	12 (0.028)	3 (0.008)
*Eurasian Curlew <i>Numenius arcuata</i> (Nt)		1 (0.005)	4 (0.009)	1 (0.002)
*Far Eastern Curlew <i>Numenius madagascariensis</i> (En)			2 (0.004)	3 (0.008)
*Ruddy Turnstone <i>Arenaria interpres</i>		2 (0.01)	12 (0.028)	2 (0.005)
*Great Knot <i>Calidris tennuirostris</i> (En)			65 (0.15)	1 (0.002)
*Common Sandpiper <i>Actitis hypoleucos</i>			2 (0.004)	2 (0.005)
*Curlew Sandpiper <i>Calidris ferruginea</i>			21 (0.049)	
*Grey-tailed Tattler <i>Tringa brevipes</i>		4 (0.02)	18 (0.04)	3 (0.008)
*Sanderling <i>Calidris alba</i>			3 (0.007)	
*Grey Plover <i>Pluvialis squatarola</i>				1 (0.002)
*Common Greenshank <i>Tringa nebularia</i>		6 (0.03)	11 (0.025)	3 (0.008)
*Common Redshank <i>Tringa totanus</i>		2 (0.01)	8 (0.018)	2 (0.005)
Black-naped Tern <i>Sterna sumatrana</i>	21 (0.072)	12 (0.06)	24 (0.21)	8 (0.018)
Whiskered Tern <i>Chlidonias hybridus</i>	12 (0.041)	25 (0.12)		4 (0.009)
Greater Crested Tern <i>Sterna bergii</i>	6 (0.02)	16 (0.08)		3 (0.008)

Gull-billed Tern <i>Gelochelidon nilotica</i>				1 (0.002)	
Philippine Green Pigeon <i>Treron axillaris</i>			4 (0.036)		
Pink-necked Green Pigeon <i>Treron vernans</i>			8 (0.07)		1 (0.002)
Grey-capped Emerald Dove <i>Chalcophaps indica</i>	1 (0.005)		1 (0.009)		1 (0.002)
Pied Imperial Pigeon <i>Ducula bicolor</i>			31 (0.28)		2 (0.005)
Western Koel <i>Eudynamis scolopaceus</i>					2 (0.005)
Himalayan Cuckoo <i>Cuculus saturatus</i>					1 (0.002)
*Northern Boobook <i>Ninox japonica</i>					1 (0.002)
Mantanani Scops Owl <i>Otus mantananensis</i> (Nt)	2 (0.006)	2 (0.01)		1 (0.002)	3 (0.008)
Savanna Nightjar <i>Caprimulgus affinis</i>	1 (0.003)	1 (0.005)			1 (0.002)
Glossy Swiftlet <i>Collocalia esculenta</i>		21 (0.1)		6 (0.014)	16 (0.045)
Collared Kingfisher <i>Halcyon chloris</i>	2 (0.006)	4 (0.02)	7 (0.06)	2 (0.004)	6 (0.017)
*Common Kingfisher <i>Alcedo atthis</i>	1 (0.003)	1 (0.005)		2 (0.004)	2 (0.005)
Barn Swallow <i>Hirundo rustica</i>	2 (0.006)	2 (0.01)		4 (0.009)	38 (0.1)
Pied Triller <i>Lalage nigra</i>	1 (0.003)	1 (0.005)	3 (0.02)		
Black-naped Oriole <i>Oriolus chinensis</i>			4 (0.03)		
Golden-bellied Gerygone <i>Gerygone sulphurea</i>	1 (0.003)	2 (0.01)	2 (0.019)	2 (0.004)	4 (0.01)
Glossy Starling <i>Aplonis panayensis</i>	16 (0.054)	21 (0.106)	8 (0.19)	16 (0.037)	16 (0.045)
*Chestnut-cheeked Starling <i>Agropsar philippensis</i>					1 (0.002)
*Brown Shrike <i>Lanius cristatus</i>	1 (0.003)	1 (0.005)		2 (0.004)	6 (0.017)
Rufous-crowned Bee-eater <i>Merops americanus</i>					2 (0.005)
Philippine Pied Fantail <i>Rhipidura nigrirostris</i>	1 (0.003)	2 (0.01)	2 (0.018)		

*Japanese Paradise Flycatcher <i>Tersiphone</i> <i>atrocaudata</i>					1 (0.002)
*Artic Warbler <i>Phylloscopus</i> <i>borealis</i>					1 (0.002)
White-breasted Wood Swallow <i>Artamus</i> <i>leucorhynchus</i>					3 (0.008)
*Grey Wagtail <i>Motacilla</i> <i>cinerea</i>					1 (0.002)
Garden Sunbird <i>Cinnyris</i> <i>jugularis</i>	7 (0.024)	3 (0.015)	6 (0.054)	2 (0.004)	9 (0.02)
Eurasian Tree Sparrow <i>Passer montanus</i>	26 (0.089)	28 (0.14)	4 (0.036)	6 (0.014)	36 (0.1)
Black-hooded Munia <i>Lonchura atrocapilla</i>	35 (0.12)	2 (0.01)			6 (0.017)
Scaly-breasted Munia <i>Lonchura nitoria</i>					2 (0.008)
<i>Total species</i>	21	37	17	33	57
<i>Total migratory birds</i>	3	14	6	13	22
<i>Total threatened and near- threatened birds</i>	0	1	1	2	7
<i>Total observation hours</i>	4	14	6	3	36

Of the five islands, Puerco recorded the highest number of species followed by Modessa, Cambari, Johnson, and Pagbo (Table 1). Six species composed of Garden Sunbird *Cinnyris jugularis*, Eurasian Tree sparrow *Passer montanus*, Collared Kingfisher *Todiramphus chloris*, Black-naped Tern *Sterna sumatrana*, Little Egret *Egretta garzetta*, and Pacific Reef Egret *Egretta sacra* were observed in all areas. However, there were at least 10 species recorded in Puerco that were not observed in the other islands. These included the Chestnut-cheeked Starling *Agropsar philippensis*, Japanese Flycatcher *Tersiphone atrocaudata*, White-breasted Woodswallow *Artamus leucorhynchus*, Hooded Pitta *Pitta sordida*, Rusty-crowned Bee-eater *Merops americanus*, Cattle Egret *Bubulcus ibis*, Yellow wagtail *Motacilla cinerea*, Himalayan Cuckoo *Cuculus saturatus*, Brown Booby *Sula leucogaster*, and Lesser Frigatebird *Fregata ariel*. An immature Black-winged Stilt *Himantopus himantopus* was recorded once in Puerco Island but not on the other sites. The bird must have only stopped to rest as it was weak when it reached the island on 27 August 2019. It was no longer seen the next day.

The island of Cambari also hosts a number of species that were not recorded in the other sites including the White-bellied Sea-eagle *Halieaeetus leucogaster*, Pompadour Green pigeon *Treron pompadoura*, Pink-necked Green Pigeon *Treron vernans*, and Black-naped Oriole *Oriolus chinensis*. Few waterbirds were observed in Cambari as it was mostly rocky and did not have a mudflat. Fewer birds were recorded in Pagbo as only a small section of the island had remained above water during high tide. A huge colony of about 42,000 flying foxes roosted on the southwestern section of the mangrove area.

**Abundance, diversity, and species dominance.** Bird abundance varied between islands. The most represented group consisted of egrets and herons, and terns and doves (Table 1). Majority of the species were represented singly or came in pairs, with few species having more than 10 individuals. The most abundant bird species was the M.c. *cumingii* (0.22), followed by the Vulnerable Chinese Egret *E. eulophotes* (0.16) and the Endangered Great Knot *C. tenuirostris* (0.15). Both the *E. eulophotes* and *C. tenuirostris* were observed and photographed roosting on the sandbar along with Great Egrets *Egretta sacra*, Intermediate Egrets *Egretta intermedia*, Little Egret *Egretta garzetta*, and sandpipers during high tide in Johnson Island. Terns on the other hand were regularly observed feeding in flocks and roosting on an exposed sandbar close to the island of Modessa and Puerco during high tide. The high abundance score of the Black-naped terns *Sterna sumatrana* was largely influenced by the breeding colony observed in Cambari. At the time of the survey, breeding pairs were tending the nest set on the crevices of the bare rock. At least six nests had one to two whitish to light buff eggs with blotches, and two nests were observed with one pullus.

The island of Puerco recorded the most number of species and the highest diversity index ( $H' = 2.85$ ). Johnson Island had only 33 species, but it had a higher diversity index value ( $H' = 2.67$ ) compared to Modessa ( $H' = 1.96$ ) which had 36 species. Cambari recorded the lowest diversity index (Table 2) among the five islands.

**Table 2***Comparison of Shannon-Weiner Diversity Index Values*

<b>Name of Island</b>	<b>Total number of species</b>	<b>D</b>	<b>H'</b>	<b>Hmax</b>	<b>Evenness</b>
Pagbo	21	0.05	1.2	1.32	0.90
Modessa	36	0.07	1.96	1.55	1.26
Cambari	17	0.16	1.14	1.23	0.92
Johnson	33	0.07	2.67	1.52	1.75
Puerco	55	0.08	2.85	1.74	1.63

The diversity of species varied across the islands. Puerco Island was the most diverse ( $H' = 2.85$ ), followed by Johnson ( $H' = 2.67$ ) and Modessa ( $H' = 1.96$ ). Cambari and Pagbo had almost the same index of diversity (Table 2). Puerco Island had more species compared to Johnson, but there was relatively the same chance of finding same species ( $D = 0.07$  and  $0.08$ ) in both islands. Birds in both Pagbo and Cambari almost had the same relative abundance values (Table 2), but Cambari had a higher chance (16%) of encountering different species compared to the other islands including Puerco ( $D = 0.08$ ) (Table 2).

**Selected species accounts.** Black-crowned Night Heron *Gosachius goisagi* (IUCN Least Concern) was caught on CCTV camera as it was hunting for newly hatched *M.c. cumingii* chick emerging from the nest at night on 20 August 2020. At least three birds were known residents of the island. This was the first time the species was observed preying on newly hatched *M.c. cumingii* chick.

**Philippine Scrubfowl *Megapodius cumingii* (DENR DAO 2019 - 09 Endangered).** Six nest fields were closely monitored on Puerco Island from 2016 to 2019. These are presented in detail in a separate paper (Paguntalan et al. in press). A pair was also observed scratching for food under coconut palms, and two more were observed under the beach forest trees in Modessa Island on 24-26 June 2017. We did not encounter the bird in Cambari Island, but it was cited in nearby islands and in the coastal areas of Araceli in Dumarán, as reported by locals. The locals had also cited the bird in Johnson Island.

**Malay Plover *Charadrius peronii* (IUCN Near-threatened; DENR DAO 2019 - 09 Vulnerable).** A pair was first recorded in Puerco Island in

November 2013 (Tabayag & Cruz, 2013). We observed one individual at a beach in Puerco on August 2018. A pair was also photographed in Modessa on 24 June 2017. A breeding pair was also reported in Cambari Island in 2017, but we did not encounter the species during the visit on May 2019.

Mantanani Scops Owl *Otus mantananensis* (IUCN Near-threatened). A resident pair on Puerco Island had successfully bred since 2014. At least one or two immature owls with the parents were observed on the months of May to October. One immature bird was seen with the parents perched about eight meters on a branch of a *Syzygium* on June 2017. A female was accidentally flushed from the nest that was nestled at the base of the frond of a 10-meter tall cocount in June 2018. The young bird was seen with the parents until early October 2018. The pair bred again in June 2019 and June 2020. The two immature birds were photographed with their parents on 15 August 2020. The birds were perched on a branch about five meters from the ground. One immature bird was close to the larger one (presumably the female), and the other was perched between the two birds and a slightly smaller mature bird (presumably the male). We heard two birds calling (responding to each other's call) in Modessa Island (24-25 June 2017) and one individual on Pagbo Island (4 October 2019). We were not able to visit Cambari and Johnson at night. Locals in Johnson Island reported seeing at least a pair on the island.

**Northern Boobok *Ninox japonica* (IUCN Least Concern; DENR Vulnerable).** Feeding on a Philippine Megapode chick, one individual was first photographed perched on a branch early morning on March 2017. This was the first time the bird was recorded on the island. Another individual was photographed perched on the main branch of a tree close to the nesting fields of the Philippine Megapode on 23 September 2019.

**Pied Imperial Pigeon *Ducula bicolor* (IUCN Least Concern).** The bird was encountered in Cambari and Puerco Islands. Two active nests were seen set on branches of trees on top of the northernmost ridge of Cambari Island. At least 31 individuals were counted last 22 May 2019. Birds were either moving in pairs or in groups of five to eight individuals. One individual was observed roosting on Puerco Island on 24 May 2019, while two individuals were observed roosting last 3 October 2019.

The Pompadour Green Pigeon *Treron pompadoura* was recorded on Cambari Island in Araceli, Palawan. At least four individuals were observed

feeding on fruits along with Pied Imperial Pigeons *Ducula bicolor* and Pink-necked Green Pigeon *Treron vernans*. Two of the birds were perched for more than 10 minutes on exposed branches along a steep rock wall on the eastern side of Cambari Island. We suspect the birds, opportunistically feeding on ripe fruits, were moving between small islands and mainland Palawan.

## DISCUSSION

Puerco Island was visited in 2013 by Tabayag and Cruz (2013) and documented 41 species of birds. This study added 16 more species making Puerco the most diverse among the islands surveyed (1.6 Shannon – Wiener diversity index). Birds were unevenly distributed ( $D = 0.08$ ) and were largely dominated by the *M.c. cumingii*. Majority of the birds recorded were migrants e.g., sandpipers, Chestnut-cheeked Starling *Agropsar philippensis*, Japanese Paradise Flycatcher *Tersiphone atrocaudata* and Arctic Warbler *Phylloscopus borealis*, and native birds occasionally observed to exploit on available food resources. Only 13 species were breeding on the island. The higher number of species recorded was primarily due to more time spent in Puerco than in the other areas. We advice readers to take this into consideration when comparing the results of Puerco with the rest of the other islands.

Cambari Island was the least diverse (1.14 Shannon-Wiener diversity index), with fewer dominant species ( $D = 0.16$ ) compared to the other islands. The beach forests attracted a number of native birds e.g., *D. bicolor*, Grey-capped Emerald Dove *Chalcophaps indica*, and *T. vernans* feeding on ripe fruits and invertebrates. The trees on cliffs also provided nesting sites for the *D. bicolor* and *H. leucogaster*.

A breeding pair of *O. m. mantananensis* in Puerco Island was regularly monitored since 2016. Immature birds were observed with the parents from July to October. We only recorded the adult pairs from the month of November to July. We suspect that the immature birds stay with the parents for about two months before moving to the nearby small islands. The other nearby islands in Green Island Bay and in Aracelli are important for the movement of populations of *O. m. mantananensis* as the species is reported to prefer smaller islands and islets (Kennedy et al., 2000; Sloan, 2017; Allen, 2020).

Tourism development in Palawan particularly in the municipalities of Roxas and Dumaran had significantly increased in the last two decades (Gonzales & Reyes, 2018). Catering to higher-end markets, Puerco Island was launched as Banwa Private Island in 2019. In the course of the development of the island, a 200-square meter area was set aside as Tabon Sanctuary. The protection of the nesting field in the Tabon Sanctuary largely contributed to the increase in the breeding population of Philippine Scrubfowl (Paguntalan et al., in press). Biodiversity monitoring and conservation was integrated in the daily operations of the island. This has played a key role in reducing the threats and disturbance on the species. In the case of Pagbo and Johnson, no other structural development were observed except for a few households. There were however *Rhizophora* mangroves planted on seagrass and on the mudflats in Johnson where migratory birds including the Endangered Far Eastern Curlew *Numenius madagascariensis* and the Vulnerable *E. eulophotes* were observed feeding.

The Municipality of Aracelli had initiated discussions on the prospect of showcasing Cambari Island for sustainable tourism activities. During the survey, at least two local groups of tourists visited the island. Local guides took the visitors up on the rocky slopes to get an overlooking view of the island. The rocks were unstable and slippery when wet, and some sections had large gaps that were dangerously steep and deep. A colony of Black-naped terns nested on the rocks while pigeons and *H. leucogaster* were also nesting on low lying branches close to the ridge. The Municipality should reconsider allowing tourists to climb and move around the island.

The small islands in Palawan are important habitats for Near-endemic *M. c. cumingii*, *O. m. manatanensis*, and the IUCN Near-threatened *C. peronii*. Both *M. c. cumingii* and *O. m. mantananensis* are suspected to be moving between islands in search for food and establish breeding territories. The protection of the breeding areas in Puerco had largely contributed to the increase in the breeding populations of *M. c. cumingii*. The integration of native beach forest trees had attracted species of birds to roost and feed on the ripe fruits. The experience of Puerco Island shows that habitat management, replanting of native beach forest trees, and integrating wildlife protection can go hand in hand with development.



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# Impact of Training on Communication Strategy Use of Less Proficient English Speakers in Malaysia

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This study examined the impact of training on communication strategy used by speakers with limited English proficiency. The 13-week training involved 23 limited English proficiency speakers in a culinary course, who were taught 13 lexical, negotiation, and discourse-based communication strategies. Their speech in presentations, role plays and group discussions were recorded, and the 29,492-word data set was analysed for the use of communication strategies. The results showed 1,307 instances of use of communication strategies. The most frequently used strategy was fillers (145.1 ptw), followed by lexical repetition (107.4 ptw) and response utterance (99.4 ptw). Discourse-based strategies were used more frequently than lexical and negotiation strategies, and the most often used was lexical repetition which is a versatile strategy for facilitating transfer of key information for conversational maintenance. Interactions (431.5 ptw) were more linguistically and cognitively challenging, calling more communication strategies into use than presentations (210.5 ptw). The findings suggest the necessity for communication strategies training to help speakers with limited English proficiency expand their repertoire of strategies and facilitate communication.

**Keywords:** strategic competence, communication strategies, English Proficiency, fillers, lexical repetition

## INTRODUCTION

In second and foreign language learning, learners take time to develop communicative competence which consists of grammatical competence,

sociolinguistic competence and strategic competence (Canale & Swain, 1980). As many second and foreign language learners find it hard to achieve grammatical competence, it may be more worthwhile to focus on helping them to develop strategic competence. Canale and Swain (1980, p. 30) conceptualised strategic competence as consisting of “verbal and non-verbal communication strategies that may be called into action to compensate for breakdowns in communication due to performance variables or to insufficient [grammatical and sociolinguistic] competence”. Examples of communication strategies are language switch, word coinage, restructuring, and asking for help.

Communication strategies can be categorised into linguistic (e.g., restructuring, word coinage, substitution, paraphrasing), behavioural (e.g., mime, gesture), and cooperative strategies (e.g., direct or indirect appeal for help). Studies have shown that less proficient language learners tend to use linguistic strategies for short-term conversational repair. For example, university students with intermediate English proficiency in Paramasivam’s (2009) study relied on language switch and literal translation to deal with breakdowns when communicating in English. Other strategies that foreign language learners used were paraphrasing and self-repetition (Derwing & Rossiter, 2002). Second language learners of Arabic in Saudi Arabia also frequently used paraphrasing, restructuring, fillers and repetition when interacting in role-plays and interviews on everyday topics involving concrete language (Rabab’ah & Bulut, 2007). For the English majors in Wang, Lai, and Leslie’s (2015) study, substitution, approximation, literal translation, circumlocution, and exemplification accounted for 76.16% of 902 instances of strategy usage.

Some recent research has indicated that proficient speakers put communication strategies to good use to enhance the clarity of communication. Azar and Mohammadzadeh (2013) found that the Iranian EFL teachers reported more frequent use of discourse-based strategies than lexically-based achievement strategies to transfer the key information and emphasised important topics in class. In another study, Zhu, Liao, and Cheong (2019) found that the high-performing students used the clarification strategy significantly more frequently than the medium-performing students, but it was not a significant predictor of task performance in the group discussion. Clarification is a negotiation strategy which involves the joint effort between

interlocutors to agree on a shared meaning. These findings suggest that the “better” strategies that are used by proficient speakers should be taught to less proficient speakers.

Less proficient learners can benefit from communication strategy training. In a study conducted on Taiwanese EFL college students, Tsai (2018) found that in terms of their speaking anxiety and strategy use, the lower-proficiency group responded better to the communication strategy training than the intermediate and higher proficiency groups. Three strategies were taught (i.e., avoiding L1, circumlocution, and fillers), but Tsai (2018) did not report which strategies were more appropriate for training. Contradictory results were obtained by Nakatani (2010) whereby the proficient learners improved in their fluency more than the less proficient learners.

However, the teachability of communication strategies has been a controversy. Kellerman (1991) asserted that it was better to spend time teaching learners more language rather than compensatory strategies (see also Bialystok, 1990; Canale & Swain, 1980), but others believed in the positive effects of training (Dörnyei, 1995; Færch & Kasper, 1983; Nakatani, 2010; O'Malley & Chamot, 1990; Tarone, 1984; Willems, 1987). Despite the success of some studies (e.g., Dörnyei, 1995; Nakatani, 2010; Rabab'ah, 2016), other studies have found that the communication strategy training is ineffective in helping the learners to develop strategic competence (Lam, 2006; Lam & Wong, 2000; Rossiter, 2003). Previous training studies have focussed on EFL and ESL learners (Guo, 2011).

This study examined the impact of communication strategy training on less proficient speakers in an English for Occupational Purposes (EOP) programme. The objectives of the study were to (1) examine the frequency of communication strategies used in presentations and interactions; and (2) compare the frequency of lexical, negotiation, and discourse-based communication strategies. Less proficient speakers were chosen to establish whether they could benefit from strategy training, and EOP was chosen as the context where the impact of communication strategy training can be examined in a more challenging English usage environment because of the technical subject matter.

## THEORETICAL FRAMEWORK OF STUDY

The theoretical framework for this study is an integrated typology of communication strategies comprising psycholinguistic problem-solving (Færch & Kasper, 1980; 1983), and interactional (Tarone, 1980) and discourse (Clennell, 1994, 1995) frameworks.

In Færch and Kasper's (1980, 1983) psycholinguistic view, communication strategies are seen as having a compensatory role. Færch and Kasper (1980) defined communication strategies as "potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal" (p. 36). To achieve the goal of overcoming a problem in communication, learners may use reduction strategies that involve change of goal and achievement strategies that involve developing an alternative plan to achieve the goal (i.e., applying interlanguage, cooperative attitudes, and non-verbal language). Functional reduction strategies may be realised as topic avoidance, message abandonment, and meaning replacement, while examples of verbal behaviours that realise achievement strategies are code-switching, intra/interlingual transfer, interlanguage-based strategies (e.g., generalisation, paraphrasing, word coinage, restructuring), cooperative strategies (including appeals), and non-linguistic strategies such as mime, gesture, and sound imitation (Færch & Kasper, 1980, p. 99).

In the interactional perspective on communication strategies, Tarone (1980) defined communication strategy as "a mutual attempt of two interlocutors to agree on a meaning in situations where requisite meaning structures do not seem to be shared" (p. 419). Strategies to bridge the gap between the linguistic and semantic knowledge of two speakers include the following categories: paraphrasing (approximation, word coinage, and circumlocution), borrowing (literal translation, language switch), mime, appeal for assistance, and avoidance (topic avoidance and message abandonment). At the formal level, some of Tarone's (1981) communication strategies to negotiate meaning are similar to Færch and Kasper's (1980) although different terms are used: paraphrasing (word coinage), borrowing, appeals, mime, and avoidance. However, the difference is in the role attributed to communication strategies in achieving communicative goals.

The third perspective on communication strategies is that of Clennell (1995) where communication strategies are divided into three categories. The



first category consists of lexical strategies for conversational repair composed of Færch and Kasper's (1980) strategies and part of Tarone's (1981) strategies. The second category comprises negotiation or interaction strategies, and the three discourse strategies are clarification request, confirmation check, and comprehension check. These are used when potential breakdown in communication is detected. The third category comprises collaboration or planning strategies for facilitating information transfer strategies: topic fronting, tonicity, and lexical repetition (see Appendix 1 for definitions). In the communication strategy training conducted in this study, learners were trained to use strategies from all three categories.

In the early years of communication strategy training, the psycholinguistic perspective of communication strategies for problem-solving was dominant. For example, Dörnyei (1995) taught 109 Hungarian secondary school students how to use topic avoidance and replacement, circumlocution, and fillers and hesitation devices. The experimental group used more fillers after the 6-week training, resulting in a higher speech rate and increased fluency. However, the students used circumlocution minimally either because it was not common in everyday speech or the students were practising topic avoidance. In Rossiter's (2003) study, 30 international ESL students in Canada were trained to use paraphrasing (i.e., approximation, superordination, analogy, all-purpose words, and circumlocution). The experimental group used a greater range of strategies in the immediate post-test (Week 5). However, by the time of the delayed post-test (Week 10), the control group had reached almost the same range, indicating that the doubtful effectiveness of the communication strategy training.

However, in later years researchers have focussed on the interactional perspective on communication strategies. For example, in Hong Kong, Lam (2006) trained his students to use resourcing, paraphrasing, self-repetition, fillers, self-correction, asking for repetition, asking for clarification, and asking for confirmation. The training focussed on one strategy per lesson. Unfortunately, the training only increased the use of resourcing (i.e., strategic use of available words in the task instructions) but not the use of communication strategies. Similarly, Rabab'ah (2016) only succeeded in getting the experimental group to use more circumlocution and self-repair. In comparison, the increase in the number of negotiation strategies was not obvious (i.e., appeal for help, asking for repetition, clarification request,

confirmation request). Nevertheless, Nakatani (2010) managed to increase his learners' fluency through the communication strategy training. Nakatani (2010) showed that his 12-week strategy training was successful in teaching Japanese EFL learners to use achievement strategies (confirmation check, comprehension check, clarification request, shadowing, and active response).

Thus far, studies on communication strategy training have not included discourse-based strategies proposed by Clennell (1995) although researchers have found better use of discourse-based strategies among the proficient learners compared to the less proficient learners (Soekarno & Ting, 2020; Ting, Musa, & Sim, 2013; Ting & Phan, 2008). In view of the mixed results in past studies, it is important for more studies on communication strategy training to be conducted to investigate the impact of teaching different categories of strategies.

## METHOD OF THE STUDY

The communication strategy training programme was underpinned by a theoretical framework that integrated the psycholinguistic, interactional, and discourse perspectives on communication strategies. The response utterance strategies, as well as tasks and staging of the training sessions, were adapted from Nakatani (2005, 2010). The task types chosen were technical presentations and interactions. Interaction tasks raise the difficulty of communication for these speakers higher compared to technical presentations for which participants could rehearse. For this reason, tasks such as reading aloud, answering questions, and describing pictures (Huang, 2016; Rossiter, 2003) were not adopted in the present study as a means to observe the participants' performance in using communication strategies. To raise the task difficulty for adult learners, other researchers also used interactive tasks such as group discussion (Zhu, Liao, & Cheong, 2019), and giving instructions and exchanging opinions (Paramasivam, 2009). In the present study, the task difficulty was even higher because of the technical content in a specialised discipline (i.e., culinary science).

## Participants

The participants were 23 Year 1 students in their early twenties in a Malaysian

Skills Certificate (Culinary) programme which trained them to be kitchen assistants, chef de partie, and eventually skilled sous chefs. The name of the institution is kept anonymous in this paper. The participants had limited English proficiency, based on the results of a public examination in Malaysia (Sijil Pelajaran Malaysia, translated as Malaysian Education Certificate) which students sit for at the end of their secondary school education. They obtained only a passing grade in the English subject after 11 years of learning English in school where Malay was the medium of instruction. They could speak Malay and their ethnic language (i.e., Dusun, Sino Natives, Sama'an, and Orang Sungai), but some were unable to produce comprehensible utterances in English. The trainer was the first researcher. The study was conducted in Sabah, an East Malaysian state.

## Instrument

The instrument for the study was a 13-session communication strategy training programme, which incorporated communication strategies into a curriculum designed for the Malaysian Skills Certificate (Culinary) course. Table 1 shows the communication strategy taught, each session lasting 120 minutes. The practice sessions comprised dyadic interaction, individual presentation, and group discussions to suit the topic that was taught.

Each session consisted of the following stages: (1) raising learners' awareness of the strategy; (2) modelling the use of strategy; (3) giving explicit instructions on the task and use of strategy; and (4) practising strategy use. In the 15-minute awareness-raising stage, the trainer described the communication strategy (with examples), the functions of the strategy, and the way it was used in different contexts. The total amount of time for the training (i.e., 26 hours) was longer than other communication strategy training studies such as Nakatani (2005; 2010) who had 12 sessions lasting for 90 minutes each. Other researchers had fewer sessions as explained in the Introduction section (Lam, 2006; Rabab'ah, 2016; Rossiter, 2003).

**Table 1**  
*Focus of Communication Strategy Training*

Session	Communication strategy taught	Topic	Task
S1	Fillers	Workplace communication	Dyadic interaction
S2	Appealing for help by asking for repetition	Directory instruction	Individual presentation
S3	Appealing for help by asking for the correct item or structure	Daily routine	Individual presentation
S4	Circumlocution	Anecdotal report	Individual presentation
S5	Approximation	Incident report	Individual presentation
S6	Restructuring	Technical report (lab/field)	Individual presentation & Dyadic interaction
S7	Tonicity	Proposal (e.g., family day)	Group discussion (not recorded)
S8	Topic fronting	Progress report	Group discussion
S9	Lexical repetition	Project report	Group discussion
S10	Confirmation check	Risk management (e.g. potential hazards)	Group discussion
S11	Comprehension check	Crisis management	Group discussion
S12	Clarification request	Negligence and Malpractice	Dyadic interaction
S13	Response utterances comprising (1) rephrasing/ shadowing and (2) offering the target item	Workplace communication	Dyadic interaction

## Data Collection Procedures

During the training, the participants were asked to video-record the sessions using their mobile phones. This was less intimidating than the trainer recording the participants in action. However, the trainer was present during the video recording to ensure that the discussions were not rehearsed. Undoubtedly, the participants' use of communication strategies

may not be in a natural situation because the instructor had emphasised the practice of certain strategies. However, for the purposes of studying the effect of communication strategy training, this was inevitable.

Table 1 shows the topics and types of tasks that were video-recorded for 12 sessions during the 13 weeks of training. Only Session 7 was not video-recorded because participants were new to the subject matter and were anxious about their interactions being recorded. Although there were 13 sessions during the training, the five group discussion sessions were excluded as the focus of this paper was on the presentations and dyadic interactions. Therefore, the data were from nine sessions (5 presentations, 4 dyadic interactions).

## Data Analysis Procedure

The first researcher transcribed the presentations and interactions, taking into account overlaps in speech (denoted by // in the transcripts). The transcripts also showed fillers (e.g., umm/uhh) and the rise/fall in pitch and stress (marked by / and \). Six participants assisted in verifying the accuracy of the transcripts, particularly the use of slang and other expressions which were unfamiliar to the researcher. The total word count of the transcript was 29,492 words (i.e., 10,509 words for presentations; 9,402 words for interactions; 9,581 words for discussions).

Later the transcripts were coded for communication strategies using Appendix 1 as the analysis framework. Similar to Zhu et al. (2019), reduction strategies were excluded as these do not help participants to overcome the challenges faced during the communication. Exemplifications were coded as circumlocution because examples are given to replace the target item. As for response utterances, the different forms encompassing rephrasing, shadowing and offering help were coded separately during analysis but grouped together in the presentation of results (Table 2) as these were all taught in S13.

The frequencies of the strategies were computed out of 1,000 words to facilitate comparison across the nine sets of oral data (5 presentations, 4 interactions) which had different word-counts. The calculation of communication strategies per thousand word for a particular training session was as follows:

$$\text{Frequency in which a communication strategy is used during a session} \times 1000$$

Total word count for the particular session

## RESULTS

In this section, the participants are referred to as P1 to P23 and the trainer as T. Sessions 1 to 13 are referred as S1 to S13.

### Frequency of Communication Strategies Used

The analysis identified 1,307 instances of communication strategy usage (554 or 42.4% for presentations; 753 or 57.6% for interactions). Table 2 shows the frequency of communication strategy use per thousand words so that the basis for comparison of frequencies was the same for the five presentation and eight interaction sessions. The most frequently used strategy was fillers (145.1 ptw), followed by lexical repetition (107.4 ptw) and response utterance (99.4 ptw).

The most useful strategy was fillers, a time-gaining strategy taught in S1. The participants were taught to use formulaic expressions to buy time and maintain the conversation. Excerpt 1 shows the use of fillers by P19 (“Oh yeah,” “so”) and P10 (“oh well,” “you know”). These fillers gave them a few extra seconds to think of what to say next before they began talking.

#### Excerpt 1

P19: [Oh yeah?] [So]<sup>filler</sup> how your daily work here?

P10: [Oh well],<sup>filler</sup> [you know],<sup>filler</sup> daily routine for chef. [Cooking, cooking, cooking].<sup>lexical repetition</sup>

Session 1/Transcript P10:P19

However, when the subject matter was challenging and the participants had to think on their feet, they fell back on filled pauses (“uhh”), as shown in Excerpt 2. Because of her limited English proficiency, P10 struggled with technical terms related to the malfunction of kitchen equipment, and filled pauses made her speech sound hesitant.

#### Excerpt 2

[uhh] Today we will talk about equipment malfunction and personal hygiene. [uhh] for our priority [uhh] we will [uhh] we have pick equipment malfunction, [uhh] this are the reason because [uhh] this equipment can cause severe damage to us and anyone around us especially in the kitchen, for example, [umm] knife is [uhh] categorise in equipment <sup>exemplification</sup> [p] it is quite dangerous

because we’re handling knife, especially around people in the kitchen [p] we could accidentally stab people around us or even ourself when we fall or move around.

Session 10/Transcript P10

**Table 2**  
*Frequency of Communication Strategies Used in Presentation and Interactions (in per thousand words).*

Strategy	Presentation Sessions						Interaction Sessions										Grand Total
	S2	S3	S4	S5	S6	Total	S1	S6	S8	S9	S10	S11	S12	S13	Total		
Fillers <sup>L</sup>	8.0	4.7	7.1	9.8	6.2	35.8	46.4	10.1	3.9	3.6	12.3	9.7	15.8	7.5	109.3	145.1	
Lexical repetition <sup>D</sup>	14.2	0.6	5.0	17.7	15.9	53.4	2.3	7.2	5.2	5.6	10.3	4.2	10.1	9.1	54.0	107.4	
Response Utterance <sup>N</sup>	5.6	28.2	0	1.1	0	34.9	4.7	4.3	5.2	4.2	0.5	1.5	15.6	28.5	64.5	99.4	
Circumlocution <sup>L</sup>	7.4	4.1	8.4	6.0	4.4	30.3	1.4	5.8	0	2.0	2.0	1.2	5.0	2.8	20.2	50.5	
Tonicity <sup>D</sup>	0.6	3.5	2.1	1.6	0.9	8.7	9.4	0	9.2	3.6	0.5	6.7	3.5	7.1	39.9	48.7	
Clarification requests <sup>N</sup>	1.8	6.5	0	0.6	0	8.9	0.5	4.3	7.8	5.3	2.6	2.7	8.2	6.7	38.1	47.0	
Confirmation checks <sup>N</sup>	0	4.7	0	0.3	0	5.0	1.9	2.9	10.5	7.0	1.5	1.5	5.4	4.0	34.7	39.7	
Topic fronting <sup>D</sup>	2.5	1.2	0	1.6	0	5.3	0	0	6.5	1.7	2.0	1.2	5.4	0.8	17.6	22.9	
Comprehension checks <sup>N</sup>	1.8	4.1	0.8	0	0	6.7	0	0	6.5	1.7	1.5	1.5	2.5	1.2	14.9	21.6	
Restructuring <sup>L</sup>	1.8	0.6	0	3.0	2.6	8.0	0	2.9	2.6	0.6	1.0	2.4	2.2	1.2	12.9	20.9	
Approximation <sup>L</sup>	0.6	0	3.8	2.7	1.8	8.9	0	2.9	0	1.4	1.5	3.3	1.2	1.6	11.9	20.8	
Appeal for help <sup>N</sup>	0	2.4	0	0	0	2.4	0.9	0	0	0	0	0.3	5.2	0.8	7.2	9.6	
Request repetition <sup>N</sup>	2.5	0	0	0	0	2.5	0	1.4	1.3	0	0	1.2	1.5	1.2	6.6	9.1	
Total CS per session	46.8	60.6	27.2	44.4	31.8	210.8	67.5	41.8	58.7	36.7	35.7	37.4	81.6	72.5	431.9	642.7	

Note: In the Communication Strategy column, lexical, negotiation, and discourse strategies are indicated by superscripts L, N and D

Lexical repetition is the second most frequently used communication strategy in the study. Excerpt 3 is taken from S5 transcript where the participants gave individual presentations on an incident report such as an Independence Day celebration or a market visit which was part of the service training. Here, P11 used the lexical repetition strategy a few times (“baking,” “there is no,” “the acting,” “they do”) when he described the involvement of different groups of students in the activities. The lexical repetitions enabled him to formulate what he wanted to say and move on with his presentation. He did not attempt to restructure the syntax of his utterances.

**Excerpt 3**

And for the, for [uhh] baking, [the baking]<sup>lexical repetition</sup> was involve by the Culinary student, and one of the participant is, is me, and the, the theme of, [the theme

[uhh] that time is [uhh] free,<sup>[approximation]</sup> [I mean there is no,<sup>[filler]</sup> [there is no]<sup>[lexical repetition]</sup> [uhh] bebas, so, [uhh] for the acting, [the acting]<sup>[lexical repetition]</sup> was [uhh] did by the housekeeping student, they do [uhh] [they do]<sup>[lexical repetition]</sup> what, about Japanese occupation, and the, the acting was [uhh] [p] rising our spirit, spirit of [p] patriotism, and other than that [uhh] the arm wrestling was [uhh] involve by [uhh] what, many student, boy, [boy student]<sup>[lexical repetition]</sup> and, and the //

Session 5/Transcript P11

Lexical repetitions, when used with rising and falling tone, are useful for conveying different discourse functions ranging from discourse and topic maintenance, topic salience marker, appeal for assistance, and request for clarification (Clennell, 1994). Excerpt 3 shows some evidence of P11 marking the salience of “the baking” which was done by culinary students as well as “the acting” which was done by housekeeping students. The lexical repetitions here served as back-channels to indicate comprehension, which helped to maintain discourse. In interactive tasks, lexical repetition can also be used to appeal for assistance and to request clarification from interlocutors. The high frequency of lexical repetitions suggests that it might be a natural behaviour for them to use lexical repetition. However, participants need to be trained to use lexical repetition for more diverse functions such as appeal for assistance and clarification requests instead of merely discourse and topic maintenance, and topic salience marking.

Next, response utterances were the third most frequently used strategies (e.g., rephrasing/shadowing, offering assistance). Excerpt 4 shows that P17 used rephrasing and shadowing strategies in S9, where the trainer was guiding him to talk about the fee they were going to charge for the culinary family day. Initially P17 misheard the trainer’s utterance “fifty” as “fifteen” but when the trainer corrected him (“one five”), he shadowed her response to show that he had heard it correctly. Excerpt 5 shows three participants also discussing the same topic using response utterances to clarify how much the bus fare cost and who could take the bus to go to a recreational park.

#### **Excerpt 4**

P17: [uhh] For this moment we going to charge them around  
fifty ringgit but //  
Trainer: [Fifty?]<sup>[shadow]</sup>  
P17: [Fifteen.]<sup>[rephr]</sup>  
Trainer: Fifteen, [one five?]<sup>[confm]</sup>  
P17: Yeah, [one five.]<sup>[shadow]</sup>  
Trainer: Oh.



P17: But maybe if anything change, [anything change,]lex in the  
here we will inform.

Session 09/Transcript P17

**Excerpt 5**

P09: [About the transport?]clarification request  
P18: [One hundred and twenty ringgit for bus fees.]reply  
P05: [We will provide, yeah for all.]reply  
P18: [Yeap, for all.]shadow

Session 9/Transcript P05:P18

The results showed that the training helped the less proficient speakers to learn how to use response utterances to maintain conversations by rephrasing, shadowing, and offering target items to their interlocutors.

It can be concluded that training can help less proficient speakers to learn communication strategies, particularly the use of fillers, lexical repetitions and response utterances, to assist them in reaching their communicative goals. Overall, the participants used more communication strategies for interactive tasks (431.9 ptw) than individual presentation tasks (210.8 ptw). This is because participants could rehearse for presentations, resulting in a smoother delivery, and they had lesser need for communication strategies. Impromptu interactions were more challenging because participants could not anticipate what their interlocutors might say next, and they needed to use more strategies in order to formulate their thoughts.

**Comparison of Categories of Communication Strategies Used During Technical Presentations and Interactions**

Table 3 shows that the participants used more lexical and discourse strategies than negotiation strategies. A chi-square test of independence was performed to examine the relation between category of strategies and task type. The results showed significant differences between the categories of strategies used and the task type,  $X^2 (2, N = 643) = 7.13, p = .05$ .

The mean frequencies showed that lexical and discourse strategies were mainly used during interactions whereas negotiation strategies were mainly used during presentations. The higher frequency of negotiation strategies in individual presentations is unexpected because monologues should not require the use of negotiation strategies (i.e., response utterance, clarification requests, confirmation checks, comprehension checks, appeal for help, request repetition).

**Table 3**

*Total and Mean Frequency of Communication Strategies Used During the 13 Training Sessions by Category (ptw)*

Category	Presentation sessions		Interaction sessions	
	Total	Mean frequency	Total	Mean frequency
Lexical strategies	83.0	20.8	154.3	38.6
Negotiation strategies	60.4	10.1	166.0	3.66
Discourse strategies	67.4	22.5	111.6	37.2
Total	210.8		431.9	

Note: The mean frequency is calculated by dividing the total number of strategies (ptw) by the number of strategies in the category (lexical strategies: 4; negotiation strategies: 6; discourse strategies: 3). For specific strategies in these categories, see Table 2.

To find out the effect of the training, the frequencies of strategy use in the first and last sessions were compared by category (Table 4). Both sessions involved interactions in the form of small talk in the workplace. A chi-square test of independence was performed to examine the relation between category of strategies and number of strategies at the beginning and at the end of the training. The results showed significant differences between the categories of strategies used and the training session,  $X^2 (2, N = 643) = 44.11, p = .01$ . The mean frequencies show a decrease in the use of lexical strategies (e.g., fillers, circumlocution, restructuring, approximation) and an increase in the use of negotiation and discourse strategies during the period of the training. The participants used more lexical strategies than expected in the first session of the training, but in the last session of the training, the participants used more negotiation strategies than expected. The increased use of negotiation strategies in session 13 suggests the usefulness of the training in helping less proficient speakers to use response utterances, clarification requests, confirmation checks, comprehension checks, appeal for help, and request repetition to enhance their communication. However, the training did not succeed in increasing the less proficient speakers' use of discourse strategies as the frequency was less than expected. These results are further explained next.

**Table 4**  
*Frequency of Communication Strategies at the Beginning and End of Strategy Training (ptw)*

Category	Session 1	Session 13
Lexical strategies	47.8	13.1
Negotiation strategies	8.0	42.4
Discourse strategies	11.7	17.0
Total	67.5	72.5

The training successfully reduced the participants’ reliance on lexical strategies (from 47.8 ptw to 13.1 ptw, Table 4). The frequency of negotiation strategies showed a five-fold increase after the training (from 8.0 ptw to 42.4 ptw, Table 4), particularly response utterances involving rephrasing, shadowing, and offering the target language item to interlocutors.

A novel aspect of the training carried out in the present study was the incorporation of discourse strategies which were absent from previous strategy training studies. However, the increase in discourse strategies was minimal (from 11.7 ptw to 17.0 ptw, Table 4). While the training heightened the use of lexical repetition, it did not have the same effect on tonicity and topic fronting (Table 2). Discourse strategies have an edge over lexical and negotiation strategies because they make use of already existing linguistic resources. Lexical repetition only involves repetition, tonicity only requires the strategic use of stress and pitch, and topic fronting merely involves announcing the subject before offering the details. Lexical repetition is useful as a stalling device for discourse maintenance and topic salience marker.

**DISCUSSION AND CONCLUSION**

The study on the positive impact of communication strategy training showed that the less proficient English speakers used more negotiation and discourse strategies at the end of the training and that their use of lexical strategies decreased. Three findings are worthy of a discussion.

Firstly, regardless of output task type, fillers were the most frequently used communication strategy, followed by lexical repetition and response utterances. Using fillers is a lexical strategy, and appropriate use of stock phrases can bridge communicative gaps and are better than filled pauses

which make the speakers sound hesitant. The use of fillers illustrates the compensatory role of communication strategies. Lexical strategies require the use of existing linguistic resources. For example, circumlocution and approximation require learners to explain the intended meaning using other words. Less proficient speakers have immense linguistic deficits, and excessive restructuring of the syntax of utterances jeopardises the fluency of their speech. The reduced reliance on lexical strategies at the end of the training indicate that the less proficient speakers were possibly using communication strategies less for solving communication problems but more for message enhancement. Other studies have shown that communication strategy training can increase the frequency of lexical strategy usage (Rabab'ah, 2016) and the variety of lexical strategies used (Rossiter, 2003). Their training did not include negotiation and discourse strategies; hence, their goal was to enable the learners to use more lexical communication strategies. However, in the present study, two other categories of communication strategies were taught and the less proficient speakers' use of strategies in these categories increased.

Secondly, the training enabled the less proficient speakers to learn how to produce lexical repetitions in different tones to achieve a variety of discourse functions, and the advantage of this communication strategy is that additional linguistic resources are not required. Lexical repetition is useful as a stalling device for discourse maintenance and as topic salience marker. In fact, without training, learners already often used lexical repetition, but these were based on their self-reports (Azar & Mohammadzadeh, 2013; Ting, Soekarno, & Lee, 2017). The literature shows that while training can increase the use of lexical repetition (partly because it is already the natural behaviour of participants), it is more important to expand the range of functions – particularly to replace stock phrases for meaning negotiation strategies. For example, “do you get what I mean?” (comprehension check), “can you explain that again?” or “I didn’t catch you?” (clarification request), and “let me get this right, are you saying that ...” (confirmation check). With a skilful use of rising and falling tone, the same meanings can be conveyed through lexical repetition, circumventing the need to use stock phrases, which can be difficult for less proficient learners to master. Besides lexical repetition, the other important discourse strategy to include in strategy training is tonicity, and it is easier to learn to use stress and pitch than

topic fronting which involves manipulation of the syntax of utterances. By using negotiation strategies, the clarity of meanings in interactions can be enhanced particularly in interactions.

Thirdly, it was difficult for the less proficient speakers to learn negotiation strategies, particularly clarification request, confirmation check, and comprehension check as these strategies were seldom used during the duration of the training. It is possible that metacognitive awareness is required to monitor how the exchange of meaning is going and to step in with strategies to ensure that meanings continue to be shared among the interlocutors. Past research using transcript analysis (Zhu et al., 2019) found that high-performing students used clarification requests more frequently than medium-performing students, indicating that negotiation strategies is a mark of more proficient learners. With training, participants can learn negotiation strategies as shown by Nakatani (2005), but there have been contradicting results (Rabab'ah, 2016). Lam and Wong (2000) reported that the Hong Kong students used more negotiation strategies after the training, albeit ineffectively. In other words, frequency alone is not sufficient to measure the effectiveness of strategy training, and qualitative analysis needs to be employed to verify whether the negotiation strategies enhance meaning making.

The study showed that communication strategy training can expand the less proficient English speakers' range of strategies and introduce them to discourse strategies that do not require additional linguistic resources. Conscious attention to a communication strategy may lead to more frequent use of the strategies (Bøhn & Myklevold, 2018). Awareness of a variety of strategies is only the beginning; learners need to have adequate opportunities for specific focused practice for "the transfer of the new strategies to new tasks" to take place (Dörnyei, 1995, p.65). Some researchers (Lam, 2006; Lam & Wong, 2000) have reported unsatisfactory outcomes of communication strategy training. From the literature, it is clear that most studies allocated one strategy per session for the training, but this is not adequate. The limited time for speaking practice does not allow automatisisation of communication strategy use (Rossiter, 2003). A longer duration of training may produce greater impact in terms of automatisisation of communication strategy use but most studies seemed to have been constrained by a 14-week semester. In view of the time constraint and findings on strategies used by proficient

speakers, it is suggested that the training focus on lexical strategies (e.g., fillers, circumlocution) for conversational repair and discourse strategies (e.g., lexical repetition, tonicity) for meaning enhancement. However, as research (Lam & Wong, 2000; Rabab'ah, 2016; Zhu et al., 2019) has indicated the difficulty of training learners to use negotiation strategies, further research is needed to uncover better approaches of teaching learners to have metacognitive awareness of their communication and to use these collaborative strategies to improve their meaning-making and fluency.

## DECLARATIONS

### Availability of data and materials

The data used to support the findings of this study are available from the corresponding author upon request.

### Competing interests

The authors declare that they have no competing interests.

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## APPENDIX 1

### Definition of Communication Strategies

Strategy	Description	Example
1. Fillers	The speaker uses time gaining strategies – fillers etc. to think and to keep the communication channel open.	Actually what I'm trying to say is
2. Asking for repetition	The speaker asks for repetition to show that s/he did not hear or understand an utterance, sometimes by using a questioning tone.	P17: uhh. For this moment we going to charge them around fifty ringgit but T: Fifty? P17: Fifteen.
3. Appeal for help	The speaker asks for the correct item or structure.	Can I ask you something? How do you say X?
4. Circumlocution	The speaker describes characteristics or elements of the object or action instead of using the appropriate target language structure.	Uhh, the, the, the movie one, the, the, English show
5. Approximation	The speaker uses an alternative expression that had semantic features similar to those of the intended term.	So you wear the suitable, uhh, footwear, it will, umm
6. Restructuring	The speaker restructures the syntax of an utterance.	So is it really, do you need to utilise the one hour for "Finding the difference"?
7. Tonicity	The speaker uses stress and pitch to mark key information or to differentiate given from new information.	Oh, the CHEAPEST because we are student, so it's uhh, maybe it's the CHEAPEST for ...
8. Topic fronting	The speaker makes use of subject plus predicate syntactic structure to parcel up information to emphasise the topic.	Then our venue, we will do it at Ascot Academy, umm, if we can use the venue here.

9. Lexical repetition	The speaker repeats words or phrases with a system of tones for discourse and topic maintenance, topic salience marker, appeal for assistance, request for clarification and to indicate comprehension.	But maybe if anything change, anything change, in the here we will inform.
10. Confirmation check	The speaker queries to affirm he has understood something correctly which sometimes include repeated words or phrases.	But I put a salt, so the food becomes salty, so, it was a, very bad for serve the food, right?
11. Comprehension check	The speaker queries to see if the listener has understood correctly which sometimes include repeated words or phrases.	The Borneo Battle of the Band is to identify talent in Sabah, Sarawak, Brunei or Sumatera Indonesia. Alright?
12. Clarification request	The speaker asks for an explanation when the speaker does not entirely comprehend something which sometimes include repeated words or phrases.	What do you mean, madam? Effect, you mean?
13. Response utterance: - Rephrasing/Shadowing	The speaker uses the exact, partial or expanded repetitions of the interlocutor's preceding utterance in order to show the listener's understanding of important issues.	Yeah, one five.
14. Response utterance: offering target item	The speaker offers the target item to the interlocutor.	No, we just approximate about the time.

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# **Irog-Irog: Making Space for Contributions and Critique of the Tiempos and the Silliman Workshop**

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Edilberto and Edith L Tiempo have been under scrutiny recently in relation to their perceived participation in the cultural diplomacy arm of American Empire. An article from a few years back, by the poet and critic Conchitina Cruz, viewed this from the lens of a Filipino nationalist Renato Constantino, who was keen on elucidating a vision of the “miseducation of the Filipino,” alongside the ideas of Eric Bennett on the life and work of former Iowa Writers Workshop Director Paul Engle in relation to the Cold War.

Cruz’s scrutiny is problematic because of the arguably inappropriate use of the framework by Constantino. This essay presents typically unseen aspects of the life and work of the Tiempos, particularly that of Edilberto. The goal of the presentation is to complicate the understanding of the couple’s work, which is more aligned to the way Constantino discussed the way Filipinos worked and made choices in the light of nationalist concerns.

Ultimately, an alternative is given to Cruz’s highly structured and limiting frame, one connected with more local approaches that involve connection with the *kalooban*, as embodied in a composed song in the Cebuano-Visayan language. What is hoped for is a kind of critical approach that allows for a more reasonable scrutiny, in which useful and harmful aspects are weighed to serve the strengthening of national interests.

**Keywords:** Philippine literature in English, American imperialism, cultural diplomacy, postcolonial criticism

It has been a few years since the online publication of Conchitina Cruz's "The (Mis)education of the Filipino Writer: The Tiempo Age and Institutionalized Creative Writing" in the *Kritika Kultura* Journal of the Ateneo de Manila University's Department of English (Cruz). I used to teach in the said department; and while I was already teaching in another unit when the essay came out, I felt its undeniable sting. It had to do with being both an Ateneo de Manila teacher and an alum of the Silliman National Writers Workshop, which the essay's subjects, Edilberto and Edith Tiempo, cofounded in 1962.

The years offer some relief due to chronological distance, which also allowed for a critical assessment that, though still holding the writer and publisher accountable for what is I believe is an unbalanced portrayal of the Tiempos, I have been able to frame the critique in a different vision. The delineation where "The (Mis)Education of the Filipino Writer" fits is that of an anti-imperialist project, wherein it is the great structural forces that need to be focused on and rebalanced, even when the tone of the essay goes polemically overboard. Such a project has great value, especially at this crucial time when demagogues are trying to stay in power, our national sovereignty in the Philippines is under threat, and oppression based on class is rife.

The presentation that Cruz does is a multilayered one, and I hope to address these concerns, some of which hold water and will do well to be considered. The following four points, I believe, summarize the concerns that Cruz sought to address:

1. The Silliman Workshop was modeled after the Iowa Workshop, which is linked to American Cultural Diplomacy.
2. The Silliman Workshop's focus on New Criticism prevents writers from seeing the political aspect of writing.
3. The Silliman Workshop's focus on English prevents writers from seeing the political formation and dynamics of language.
4. The Silliman Workshop, having focused on works in English, also perpetuated a local elite in Philippine literature, which has enabled gatekeeping of those who might produce new literary works from within and outside the academe.

Although I am trying to take the most useful material from her presented concerns, I believe it important to present the problems that I have seen in her paper. The goal is not simply to put the *Tiempos* and the Silliman Workshop in a more appreciative light. It is to forward a possible fruitful approach to criticism in relation to national concerns, in which literature and creative writing play a part.

I would like to propose that “The (Mis)Education of the Filipino Writer” must be read with care because it is problematic in its assessment due to 1. the deployment of a framework that does not match its purposes, and 2. there are gaps in the presentation of the *Tiempos*, which can be alleviated by more research. I will develop this thesis by going through the following:

1. An elucidation of Renato Constantino’s “The Miseducation of the Filipino,” and an assessment of how it does not complement the project of Cruz;
2. An examination of ideas by Jose Maria Sison and Gelacio Guillermo that might provide a better framework for Cruz’s anti- imperialist project; and
3. A filling-in, so to speak, of what I see as gaps in the research of Cruz, which should complicate the way we view the *Tiempos*, the Silliman Workshop, and the anti-imperialist project that Cruz sought to launch.

I have elected to take a track different from critics such as Charlie Samuya Veric, who makes a formidable claim that Edith Tiempo, by being critic and poet, is able to place the two aspects of her life into a dialectic that synthesizes into work that breaks through the form-focused New Criticism that she was reared in (258-259). Critics, such as Veric, have focused more on addressing the claims echoed by Cruz in her work. My paper is an act of listening to her project and sorting out what has not been articulated properly in the process.

This paper, I believe, calls for a different approach as compared to the typical academic paper, wherein one usually borrows an overarching frame from an established critic or theorist. Although I will refer to established theories and ideas, I choose to begin with a set of lyrics that Edith Tiempo had used as part of her essay entitled “When Music Sings in the Hearts of

the People<sup>[1]</sup>.” In doing so, I hope to frame my project, which is to enable a potentially useful understanding between writers and critics.

*Pahaloka Ko, Day*

- Boy: Pahloka ko, Day! (Let me kiss you, Miss!)
- Girl: Halok lang sa uban! (Just kiss others!)
- Boy: Ikaw may gusto ko! (But you're the one I want!)
- Girl: Nganong ako nga anaa may uban? (Why me when there are others?)
- Boy: Sigi na lagi, Day! (Come on now, Miss!)
- Girl: Dili ako kay waa ako gusto! (I won't because I don't like to!)
- Irog-irog! (Please move)
- Boy: Unsay irog? (What do you mean move?)
- Both: Irog-irog ngarig diyutay! (Move a little closer!) Irog-irog ngarig diyutay! (Move a little farther!)
- Boy: Kanindot unta sa gugma ta, (How wonderful our love could be!)
- Kun pahalok pa ikaw kanako! (If only you would let me kiss you!)
- Girl: Iasa ko man kanang imong halok, (Why should I want your kiss,) Nga dili man ko mahimuot? (When I could not be pleased?)
- Both: Ay! (Oh!) (Repeat first part)

The composed song, which has aspects of Filipino folk songs and what seems to be a broad appeal to the people from Visayas and Mindanao, is akin to the *balitaw* form<sup>[2]</sup>. The topic of the song is courtship, and it may be taken that what is happening in the lyrics is a moment of flirtation. However, it might also be said that it is also about the negotiation of boundaries and the sharing of space. After all, these matters are not irrelevant to the complications of courtship and romantic relationship.

One aspect of the lyrics has to do with a call for appropriate space. Edith

1 The song “*Pahaloka Ko, Day*” is more commonly available as “*Pasayawa Ko, Day*” on YouTube.

2 The folk song is composed by the community in a combination of conscious and unconscious ways. On the other hand, a composed song has a specific person who wrote it. “*Pahaloka Ko, Day*,” according to critic and professor Jose S Buenconsejo (284), was written by Cebuano composer Ben Zubiri. It has a dialogue structure plus what seems to be a section that connects back to the beginning, making one think that there is a composer who put the music together. Still, it has elements of the folk – the differing titles indicate the influence of various communities on the song. I thank Dr. Jose Buenconsejo and Ms. Sol Trinidad of the UP College of Music, and Mr. Paolo Pardo, for allowing me to consult on the distinctions of the folk song and composed song.

has two takes on this matter: one is that a violation of space might occur if one forces the self on the other (Tiempo, Bernad and Tiempo 270). The other one, in “When Music Sings in the Hearts of the People,” is about the pretense that people who are in love hold on to while they avoid closeness and intimacy (Edith Tiempo 24). Ultimately, what is necessary is a negotiation between the two parties involved in a courtship situation. Talking things through in a thorough way with another will ensure that everyone can share a space and enjoy it.

Talking things through, according to the lyrics of the song, might enable us to understand each other better. The instruction and request “*irog-irog*,” clearly, is something that can only be understood if one truly felt deeply for the other. One other way to get to the core of the statement is to ask for clarification. The lyrics of the song, in my opinion, do not portray this level of communication between the boy and the girl. Thus, one might say that one grants space to someone by giving this person an open ear.

I believe that the lyrics of *Pahaloka Ko, Day* might be explained from the philosophical viewpoint by Albert Alejo, SJ, who had written about the concept of *loob*, a word that though with Tagalog origins is still shared conceptually by people from different regions. What he writes, however, already goes beyond the mere understanding between two persons. What is really important is the benefit that companionship bears—the ability to understand the self better when the other person sees through you and communicates this with you in openness:

*Hindi ko kayang mamalayan ang lahat ng nagaganap maging sa aking sarili mismo. Hindi ko kayang madama ang lahat ng tuwa at lungkot ng aking kapwa. At sa aking sarili, kung minsan, ang akala ko’y napatawad ko na ay nakatanim pa pala sa kaloob-looban ng aking kawalang-malay kaya hindi ko pa rin hawak. At hindi lahat ng nakikita kong maganda at dapat ay abot ng aking kawalang-malay kaya hindi ko pa rin hawak. At hindi lahat ng nakikita kong maganda at dapat ay abot ng aking kakayahan. Totoo, ang aking kalayaan ay nakasalalay sa sariling galaw ng aking loob. Subalit posible lamang ito sa loob ng isang daigdig na mayroon akong kasama, sapagkat kung ako lang, hindi ko alam kung hanggang saan ang aking abot. Kailangan kong mamulat na hindi ako nag-iisa, na kahit anong mangyari, meron akong kapiling na kapanalig na kapwa ko na nagnanasang magpakatao at lumaya ring tulad ko. At sa gitna ng ugnayang ito, mayroon pa akong makakapitang lubos na kasama ko, narito sa pinakaloob ng loob ko at hindi ako iniwan. Siya ang pinaka-nakikisangkot sa lahat ng galaw ng aking loob. (115)*

What is notable in Alejo is that the belief *pakikipagkalooban* can be a channel of healing. Forgiveness is something that might not be given by a person only because one does not see the resentment that still festers within. On the other hand, the beauty aspired for is still not attained because this beauty is not yet seen—and can only be pointed out by a companion who is willing to share another's inner space, the *kalooban*. It is important to note that what the *kalooban* affords is not just healing on the personal level:

*Naroon ang loob sa isang namumulat at dahan-dahang nagpapalawak ng abot ng kamalayan. Naroon ang loob sa nakikiramay at unti-unting nagpapalalim ng pakikiisang-loob sa kapwa lalo na sa mga gipit na gipit at hindi makahinga nang maluwag. Naroon ang loob sa nagpapasiya at pasulong na nangangatawan sa kanyang paninindigan sa harap ng mga hangganan at kamaarian ng makataong kalagayan. Naroon ang loob sa isang taong tahimik na nananatiling tapat sa minamahal o sinumpaang. Naroon din ang loob sa pagliliwayway ng mga likhang-sining mula sa kaibuturan ng ating pagiging isang lahi. Kaya't kasama ng mga lathalaing akademiko, hayaang umambag sa literatura ng loob ang mga salaysay at kuwentong-buhay, ang mga dalit at daing ng sambayanan, ang mga tula na nagmumula sa mga piitan, at ang mga pansin at di- pansing "kadakilaan ng loob" na hindi naibabantayog sa ating kabihasnang kung bakit ba naman lagi nang natutukso sa "ningning ng mga panlabas." (Alejo 117)*

It is apparent that for Alejo, changes can be effected beyond the personal through getting in touch with the *kalooban*. What might be a problem on the structural level might even be changed through the efforts of people in touch with their inner power, who are able to relate with each other on this level. It is clear that work against any structural imbalance is always rooted in the human and moves towards what benefits individual persons—and this can be done through endeavors that are artistic and creative, all of which are in touch with the *kalooban*.

What I am doing through writing this paper is to address the anti-imperialist concerns of Cruz through making the attempt to understand her work better and fill in what it has not been able to do. This attempt, I believe, comes from the attempt at appreciation, and hopes to foster a *pakikipagkalooban* among Filipino critics at a time when structural forces dominate Philippine life. This kind of relating, I hope, will help derive what is best from the approaches of people, even those we may not agree with. This should contribute to a greater sense of community, and possibly more collaborative approaches to the work of liberation.



## My Subject Position as Critic

Coming to terms with writing this essay was a challenge, given that I feel a certain closeness to Edith, whom I learned to call Mom Edith after she asked my batch of fellows to call her that during my workshop in 2003. Maybe, it was because I had newly graduated from college that I decided to take a risk and find a way to live in Dumaguete. I ended up staying in the city for two years, and had quite an adventure. I regularly met with two of the workshop's resident panelists at that time, Bobby Flores Villasis and the late Ernesto Superal Yee, while there were days that I would just drop by CAP Building to see Mom Edith as she worked on student modules for what was then CAP College.

It was a sense of closeness to both Mom Edith and Ernie Yee, whom I fondly called my Mamah in Dumaguete, that eased me into the work of helping out with the establishment of the Dumaguete Literary Arts Service Group, Incorporated, which was more commonly known as DÜLA, Inc. I worked as secretary of the organization, which helped source funds that would augment the already present resources of the workshop<sup>[3]</sup> while being a Graduate Teaching Fellow at Silliman University—both a student of the MA Literary Studies program and a teacher of a few basic writing and reading classes.

I was able to get 32 units from my studies at Silliman, but I did not finish my degree. Generally, my mind was directed towards attempts to write poetry, other creative endeavors, and a way of enjoying life that I thought was part and parcel of my being a writer. As a matter of focus and in order to avoid hurting the feelings of the people whose stories are intertwined with my adventure, I will be selective in presenting certain details from the two special years that I stayed in Dumaguete. The ultimate point of telling a few stories, after all, is to support the objectives of this paper as well as to complicate my location to a sufficient degree.

Some of the material I will be using will be comprised of creative and critical texts selected from the work of the Tiempos and some of the students that they have had over the years. Selected interviews, done online because of

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3 The Creative Writing Foundation (CWF) had been the group that helped the Silliman Workshop when the university had withdrawn its support in the mid-1990s. Yuson, who heads the CWF, sent me the following as part of a message on September 13, 2020: "Re CWF, among the donor-friends we managed to secure financial assistance from were: Tonyboy Cojuangco (in a big way), Sen. Edgardo Angara, Dr. Jaime Laya, Erlinda Panlilio, and several other private donors who addressed individual fellowships."

the current pandemic situation, will also be excerpted and used to clarify fine points. As mentioned earlier, I will be including my own personal anecdotes, tailored in such a way that they honor the other persons involved in the interview in an autoethnographical fashion. Hopefully, my subjectivity will be complemented or interrogated by citing ideas from other critical thinkers.

I hope that it is apparent that the cue for this kind of perspective, wherein I try not to simply debunk any side of an argument, comes from the image that is derived from a close look at the lyrics of *Pahaloka Ko, Day*. Indeed, one might say that what is encouraged is a healthy kind of relationality, which can contribute to people having the space that they need. In our contemporary times, I think that sound relationships between parties that do not agree are needed because, as mentioned earlier, the point of our debating is liberation – something quite urgent at this point in history.

### **Problematizing the Framework of “The (Mis)Education of the Filipino Writer”**

The title of Cruz’s paper is a clear reference to Renato Constantino’s landmark essay “The Miseducation of the Filipino” from which the following excerpt comes:

The first and perhaps the master stroke in the plan to use education as an instrument of colonial policy was the decision to use English as the medium of instruction. English became the wedge that separated the Filipinos from their past and later was to separate educated Filipinos from the masses of their countrymen. English introduced Filipinos to a strange, new world. With American textbooks, Filipinos started learning not only a new language but also a new way of life, alien to their traditions and yet a caricature of their model. This was the beginning of their education. At the same time, it was the beginning of their miseducation, for they learned no longer as Filipinos but as colonials. They had to be disoriented from their nationalist goals because they had to become good colonials. The ideal colonial was the carbon copy of his conqueror, the conformist follower of the new dispensation. He had to forget his past and unlearn the nationalist virtues in order to live peacefully, if not comfortably, under the colonial order. (6)

It is clear from the above portion that Constantino sees language as an important factor in forwarding nationalist goals, all of which serve the interests of the nation. The essay contains proposals that move towards the strengthening of one’s national identity in order to be conscious enough to

subvert neocolonial forces and forward national interests. The relatively short essay has a wide range, spanning issues on language, education, history, and economics. It is no wonder that even though it was written in the 1960s, it continues to be influential.

What I think must be considered first in the appropriation of this Constantino essay by Cruz is that her approach to human agents is different. Indeed, Constantino places a big focus on the matter of language in "The Miseducation of the Filipino." However, there are other considerations and allowances that he makes which Cruz does not. This, to me, speaks of the need for a more qualified appropriation because Constantino seems to advocate for reflexivity and a closer examination of matters pertinent to the choices that Filipinos need to make for the nation. This kind of approach is not clear from the Cruz's essay, if not at all absent.

If I may say so, what is present in Constantino might be a kind of openness that borders on playfulness. He is able to put his foot down on matters that will exacerbate the Filipinos' subservience to neocolonial forces. However, his essay also makes allowances that enable a tolerance of things that can be useful for the nation. For example, the learning of English for Constantino, though limited, is something that is useful and advantageous:

This does not mean, however, that nothing that was taught was of any value. We became literate in English to a certain extent. We were able to produce more men and women who could read and write. We became more conversant with the outside world, especially the American world. A more widespread education such as the Americans desired would have been a real blessing had their educational program not been the handmaiden of their colonial policy. (4)

Constantino was an advocate of critical thought, which would help us be objective about colonial forces that we interact with. For him, it is important that what has not been done in order for us to view our colonial masters with objectivity—"seeing their virtues as well as their faults"—should be rectified. As he said, "The function of education now is to correct this distortion" (19). Overall, one might see Constantino's advocacy had a view of the Filipino as capable of conscious choice-making and utilizing what has been received from the colonizers and using these to advantage.

This kind of approach, unfortunately, is not the approach that is reflected in Cruz's "The (Mis)Education of the Filipino Writer." The essay in general takes on a firmly polemic tone that seems to have fixed or limited

views on the Edilberto and Edith Tiempo, which seem not to extend the benefit of doubt as to their agency. Cruz's words (with quotations from Isabel Pefianco Martin) on Edilberto, the half of the couple less examined in the paper, prove the point clearly:

English was the language of creative writing at the onset of its disciplinary codification, and it cemented the role of the educational institution as the primary habitat of Philippine literature in English. The first Filipino writers in English were campus writers trained under a curriculum that excluded literature in the local languages. This turned the Anglo-American Canon, tailored specifically for the colony through selections that explicitly valorized colonial rule and promoted colonial values, into the sole resource of models not only of "good English" but also "great literature." (Martin 92, 95) As a Filipino officer who served the United States during the war, a product of American colonial education in the Philippines, and an Iowa-trained pioneer in teaching creative writing to Filipinos, Edilberto Tiempo is a clear-cut embodiment of the colonial subject shaped by both militarization and education. (9)

The way that Edilberto is portrayed as the ideal colonial subject by way of education and militarization lacks nuance and contextualization. Hence, I am led to think that the portrayal goes against the invitation of Constantino towards remembering the past, using what has been received from the Americans to our advantage, and using a greater level of critical thinking and reflection.

One of the things that can be gleaned from the novels of Edilberto K Tiempo is the keen eye focused on thorny questions pertaining to human concerns. From this alone, one would begin to question the clear-cut assessment that was made by Cruz. The literary scholar, Robert D. Klein, partially quoting from an essay by Lim Thean Soo, has this to say about the novels of Edilberto:

Edilberto K Tiempo's early novels are set in wartime Central Philippines and capture the spirit of the times from an insider's perspective. As head of the Historical Section of the 7th Military District, United States Armed Forces in the Far East (USAFPE), he compiled documentation of Japanese abuses and torture of civilians, *They Called Us Outlaws*.

Portions of this book were used in the war crimes prosecution trial of Gen. Tomoyuki Yamashita and incorporated into his novel *The Standard-Bearer*. (1985)

As the first Filipino student in the Iowa Writers Workshop in 1946, he submitted *Watch in the Night* as his M.F.A. Thesis, coming out in print in the Philippines in 1953. It was later published in England and America as *Cry Slaughter* (1957) and quickly translated into several languages.

All of Tiempo's subsequent novels have a similar focus on the choices and dilemmas its main characters have with the forces of history. Lim has called Tiempo's heroes "basically contemplative, driven to judgmental evaluation of incidents and people around them all the time...His choice of protagonists—e.g., minister, lawyer, politician—fittingly demonstrates the questioning frame of mind that, given the centrality of moral questions to Tiempo, his novels ultimately require." (1993b, 119-120) (66)

The assessment brings a number of questions to mind. Would a novel that is written in English not serve the interests of Filipinos even if the subject matter is a first-hand account of the Filipino experience of suffering during World War II? When one looks at the ideas presented by Constantino, Edilberto's act of remembering the point of view of Filipino victims of the war might serve the nation despite being written in the English language. Looking at Cruz's view that Edilberto was exposed to an Anglo-American canon that "valorized colonial rule and promoted colonial values," and thus inclined to such values, his act of remembering is cast in a bad light, seen as serving the cause of American Imperialism.

## A More Appropriate Framework in Sison and Guillermo

One way to view Cruz's perspective is that it makes less allowances for ambiguities—and there are other political views aside from Constantinos that might allow for such takes. In this regard, I propose that it will be useful to examine the structural model of national liberation as proposed by Jose Maria Sison, which is informed with more structured ideas about feudalism and imperialism and which sees education as one means of propagation.<sup>[4]</sup>

Although the model that Sison proposes does not fully correspond to

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4 Writing as Amado Guerrero in *Philippine Society and Revolution* (85), Sison states that "feudalism still persists in the Philippines although US imperialism has introduced a certain degree of capitalist development. US monopoly capital has assimilated the seed of capitalism that is within the womb of domestic feudalism but at the same time it has prevented the full growth of this seed into a national capitalism. The persistence of feudalism and the growth of a limited degree of capitalism can be understood only by delving into history. Feudalism is a mode of production in which the principal forces of production are the peasants and the land which they till and the relations of production are basically characterized by landlord oppression and exploitation of the peasantry. The most immediate manifestation of feudalism is the possession of vast areas of cultivable land by a few landlords who themselves do not till the land and who compel a big number of tenants to do the tilling. Feudal relations between the parasitic landlord class and the productive peasantry essentially involve the extortion of exorbitant land rent in cash or kind from the latter by the former. Such basic relations leave the tenant-peasants impoverished as their share of the crop is just enough or even inadequate for their subsistence. They are further subjected to such feudal practices such as usury, compulsory menial service and various forms of tribute. The old landlord class which utilizes land rent essentially for its private pleasure and luxury is satisfied with the backward method of agriculture because it gets more than enough for its needs from the sheer exertion of physical labor with simple agricultural implements by a big mass of tenants. On the other hand, the tenant who has only his own assigned plot to till is further impoverished by the low level of technology."

the view of Cruz, it does provide a basic dichotomy which might undergird the latter's reading better. There are a few people who hold the resources material and otherwise, and they keep most of it for themselves so that those of the lower class will always stay within a relationship of dependency. What complicates this dependency is that it ties in with the emotive aspect. Feudalism, according to Sison, is fueled by familial relations. In his case, it was through this set of relations that he almost got into such a way of life:

A great deal of the inculcation of feudal values was done through stories about my great-grandfather who was supposed to have accumulated wealth because of hard work, intelligence, and the sacred right to private ownership of land and other assets. From childhood onward, I was encouraged to study law and become a lawyer so as to be able to defend the family property, become a political leader and revive the fading feudal glory of the family. The family was already assailed by fears of continuing land fragmentation from one generation to another and by the vigorous postwar political rise of professionals coming from the rural bourgeoisie as represented by President Elpidio Quirino. I was not very much impressed by the stories about my great grandfather's hard work and accumulation of land. That was because my classmates and playmates in the local public school were children of our tenants and the local middle class and they told me stories about the way their own grandparents and great-grandparents had been dispossessed of land of their land by my own great-grandfather. I enjoyed bringing home and using those stories to make fun of the self-serving stories at home. (3-4)

Sison states that it was through the home that he received stories about his great grandfather, and how these served as guides towards retaining the feudal system. It puts the focus on hardwork and earnestness as factors that lead to success and puts under wraps the factors that promote the subjugation of the lower class under the hand of a few. What is interesting is that Sison, through this exposure to his classmates, is able to see beyond the stories. The short anecdote gives us both a dire outlook as well as a potential solution, which begins in the immersion in the lives of others.

For Sison, the arrival of the American regime would reconfigure the feudal system to serve imperial concerns. The power would move towards government as well as rich investors who run corporations, and the application of the feudal relationship would happen through the business framework (Guerrero 90). The shift is something that is seen in a critical articulation of the framework by Gelacio Guillermo, who had written a

review of Edilberto Tiempo's novel, *To Be Free*. The title of Guillermo's take is very telling: "How Not to Be Free."

The novel, spanning three generations of characters, involves the Alcantara family of Nueva Vizcaya, and the travails of its members. The focus of the novel, in a way, is discursive. It problematizes, indeed, how to be free. The answer comes in narrative form, through the lives of characters from three generations: Lamberto Alcantara and his brother Hilarion, Lamberto's daughter, Teodora, and Teodora's daughter Louise, whose appearance is very much like Lamberto's wife, Luisa. Each generation has a specific answer to the question, unexpected and based on individual agency.

It seems that the project of Edilberto is to present how each character manages his or her own subjectivity. This is not what Gelacio Guillermo focuses on in his argument. For him, the focus is on what, in a way, lies at the back of the character action and introspection. He focuses on the social structures and apparently disparity and—perhaps to our advantage and disadvantage—creates a reading both compelling and problematic. He begins his assessment with a clear articulation that might sound positive:

Ostensibly, the main argument of Edilberto K Tiempo's novel, *To Be Free*, is that individuals, bound by the ceremonious rigidities of traditional custom or swept away by the freewheeling whims of personal conduct, prove their worth and dignity through a long process of testing, whether this concerns the lives, loves and politics of the landowning class or the faithfulness of the ruled class, the *aripans*. The novel seems to be a search for the so-called bedrock decency that abides in the midst of changes that have transpired in Philippine history and ways of life for more than fifty years, starting from the late Spanish colonial administration up to the postwar period. For the principal character, Lamberto Alcantara, this search involves, first, a progress in the quality of discernment—that in matters of moral rectitude, the substance may remain where the form no longer avails—and second, an optimism in civilized man's capability to adapt himself in all circumstances at whatever time and place. (109)

However, the heart of the critique beats for a structural view that the literary work does not exactly abide with. For him, it is important to examine how bigger forces such as capital and imperialist power impinge on human relations, and it is a focus on this that matters more than looking at how each character can make a decision for himself or herself:

Moral values, as well as political ideas have a life in the matrix of a specific historical period, whether such values and ideas serve to prolong such a period or undermine its ascendancy. To regard morality as a matter of private integrity alone,

and politics as a process of unfolding an all- time, all-place concept of freedom whatever social forces are involved is to take issues in such a vacuum. This is clearly anomalous in a novel that presumes to situate the moral and political worth of its characters in well- defined strands of Philippine history. (Guillermo 110)

What is important, in the long run, for Guillermo is to uncover the matrix and eventually act on it so much that it falls apart so that the feudal lords may lose control and the dominated be given an opportunity for a better life. Only when system is broken can it be possible to install a new system in which people might act in more just ways.

A look at the framework on which Cruz built her argument makes me think of the greater alignment of her perspective not with Constantino's, but with the reading of Gelacio Guillermo. This reading also ties in with Eric Bennett's *Workshops of Empire*, which Cruz utilizes to forward her reading of the Tiempos. In this book, Bennett examines the formation of workshops by two major figures, Paul Engle—of the Iowa Writers Workshop—and Wallace Stegner, renowned fictionist who was instrumental in the workshop scene in Stanford University. Edilberto and Edith Tiempo are both alums of Iowa, were both close to Paul Engle, and had used the Iowa Workshop model for the one in Silliman.

What makes the Iowa Workshop problematic, says Bennett, is its complicity with the US Department of State, which is known for having conducted activities that enabled the propagation of imperialist ties with other countries. This propagation might be called Cultural Diplomacy, and it was in the analysis of Bennett that the State Department's funding of the International Writers Program of the Workshop (IWP) was presented (112-113). This kind of complicity complicates the invitation of international writers to the program, making it appear that it was a kind of neocolonial methodology.

The choice of Conchitina Cruz to frame her reading of the Silliman Workshop and the labors of the Tiempos within anti-imperialist ideations moves it towards a structural reading in broad strokes.

This kind of reading enables one to see the movement of power from those who hold it to those under their control. I would agree that in certain contexts—like the present day—this kind of reading is useful. Capital, in its various forms, moves people and institutions in certain ways, in which individuals have no say in the matter.

However, such a reading is not entirely compatible with an appropriation of Constantino's "The Miseducation of the Filipino." To say, from this view,



that the *Tiempos* and the Silliman workshop had miseducated students of creative writing by providing an education focused on English and a New Critical approach that led towards an apolitical literary production, is therefore very problematic. Such a claim can lead to a misappreciation that can prevent future readers of Philippine literature to see the usefulness of the *Tiempos'* writing to the concern of the nation—a claim that is justifiable via Constantino.

### **Filling in the Gaps: A View of the *Tiempos* and the Silliman Workshop**

What might account for the heavy criticism imposed by Cruz on the *Tiempos* can be found in an assessment that aligns her project more with the views of Sison and Guillermo. I propose that a review might clarify the view of the *Tiempos*, who had foundational ideas that are in tension with the more structural approach of Sison and Guillermo:

1. The *Tiempos* have indicated in their critical work that they are deeply rooted in their Christian faith. This might have informed their liberal humanist approach to education and politics.
2. The *Tiempos* utilized their Filipino heritage in their creative work, as seen in the exploration of other modes of expression such as music.
3. The *Tiempos* built on the local focus on family, affecting their critical positioning and their approach to education and to the Silliman Workshop.

### ***The Christian and Liberal Humanist Politics of the Tiempos***

If there are persons who might have the most stories about Edilberto and Edith's exercise of human agency in light of nationalist motives, it probably will be their children who must have been witness to much decision-making day in, day out. The following is an account from Rowena Tiempo Torrevillas, the elder of the two *Tiempo* children, about what happened to the family's plan to move to Tehran, Iran in 1972, the year martial law was declared. Edith spoke to the late Leticia Ramos-Shahani, then Secretary of the Department of Foreign Affairs:

Mrs. Shahani put her arm across Mom's shoulders and quietly led her outside the office to stroll in the corridor, where they could speak more privately. She whispered, "*Alam mo, Edith, ang inyong familya...writers kayo.* And writers, Marcos does not trust."

We should have known. Dad's entire career was founded on the principle of resistance. In 1972, he should have won the National Heritage Award...but the title of his latest book was *To Be Free*. And that was the year martial law was declared.

Dad was also known for his outspoken, uncompromising voice. Throughout his long teaching career, his colleagues would look to him to speak up, whenever a thorny issue arose at the Deans' Conference or other faculty meetings. In 1971, when the writ of habeas corpus was taken away from the populace, and student activist unrest was sweeping the nation, General Fidel Ramos (Letty Shahani's brother) was sent to Silliman, where he spoke at a university convocation there. Dad got up, and in his forthright way spoke directly to the general: "You're aware, aren't you, that your president is about to turn our country into a dictatorship?"

Alarmed, the faculty sitting next to Dad reached out to tug at him to sit down, whispering, "Ed! Ed, be quiet!"

Of course, Dad could would not, and could not, remain silent. (Torrevillas)

The family was set to move to Iran two days after martial law was declared, the plans ironed out. Apparently, it was the stance of Edilberto, ready to speak out against oppressive forces both via speech and creative writing that might have been the reason for the Marcos administration to prevent their departure at that point in time.

And not only was Edilberto willing to put himself on the line in front of government people, apparently. He was willing to present the problems of the nation even on the international stage:

On returning from an ambassadorial mission such as her Iran trip, one important Malacañang Order of the Day was for all school children in Metro Manila to line up along the ten-kilometer route from the international airport to her palace on the Pasig, each child waving a flag or strewing flowers as she passed. The world has not known that the Queen of Thailand demanded that kind of homage. (Edilberto Tiempo, "That Oxymoron, Freedom" 63)

Edilberto received the SEAWrite Award from Thailand's Queen Sirikit around a decade after their family was not allowed to travel—and he would use the opportunity to deliver critical remarks about the ostentation of the First Lady in the face of the nation's more than economic woes. Not

long after this, he would publish what I think is a clear jab at the Marcos administration, a portion that nonetheless fit well with the narrative that Edilberto was writing:

"I remember now," said the driver, unfazed. He turned right at the first corner, obviously to backtrack. He pointed to a high wall to their left. "Inside, Mister, is the house of the first wife of the president."

"What president?" Delfin was still smarting at the deception of the man, who, it was quite evident now, really knew the streets of Greenhills.

"You know, the Old Lipunan."

"What Lipunan?" In spite of himself he felt like laughing. "You know, the New Society and the Old Society."

"The president of what society?"

"Everybody around here knows it. I will not tell you. You have to find out yourself. If you are interested." He was thoughtful for a moment. "You know, Mister, if I were president I could afford three wives. I would build a house for Loretta Gutierrez." (Cracked Mirror 62)

The above excerpt is taken from the novel *Cracked Mirror*, which is about the journey of a young man named Delfin Olivar through different levels of self-awareness. The taxi ride scene takes place when he goes in search of a girl who looks exactly like a sister that he lost through unusual circumstances.

Edilberto makes good of the trip and makes it a short illustration of how deception happens in daily life, as exemplified by a driver who tries to lengthen the trip for higher fare. Edilberto takes a swipe at the Marcoses' *Bagong Lipunan*, which is juxtaposed with mansions created for wives and mistresses. The mention of Loretta Gutierrez in the excerpt makes reference to a bold star that Delfin and the driver were speaking of earlier—I would like to think that this alludes to the Dovie Beams scandal that the former president faced before the declaration of martial law.

From the above quotations, and from other materials too, one will see that Edilberto had been an active agent in fighting against the Marcos regime. If we look at this administration as allied with the US during the time of the Cold War, providing spaces for bases that were strategic in case a war took place with the USSR and China, then would Edilberto not also show aspects of agency that defines with greater detail the possibility that he was not simply the colonial subject Cruz calls him?

A good way to begin reassessing the life work of the Tiempos is to revisit their graves in Dumaguete City. Visiting Edilberto's grave was something that I used to do when I lived in Dumaguete City. Thus, I am familiar with the words inscribed on the piece of marble on his grave, a quote from the Epistle of Paul to the Romans: "We are more than conquerors through Him that loved us." It was years later when I would see Edith's epitaph, during a visit to Dumaguete in 2019. It was from the Book of Micah: "He will bring me forth into the light, I will behold his deliverance."

Beginning a revisit through their respective epitaphs should help one branch out into the different connected aspects of their lives. Firstly, the Tiempos were church elders in Silliman Church, a Christian church which is Presbyterian in orientation. They were involved in the affairs of the church, and thus it might be safely assumed that they were concerned with its Christian teaching and way of life. From this alone, one might see the divergence of their position to Sison and Guillermo: the work of church, without eschewing the structural, always has a sense of the personal and relational<sup>[5]</sup>.

It is, I think, complementary to this personal and relational aspect of Christian life, which I will call "relationality," that the Tiempos espoused a liberal and humanist framework. This framework is what might be said to have been the beacon of the Silliman Workshop, and the relationships that the Tiempos had with their students, which is widely known for its family aspect. I believe that it is reasonable to connect this orientation to the family to the Tiempos' commitment to Filipino life and culture, which was something that, despite the criticism, had bearing on the Silliman Workshop.

5 Although well beyond the flow of argumentation of this paper, I am putting down ideas of the philosopher Slavoj Žižek in this footnote, as he had articulated a value that Christianity has in a reexamination of a Marxist viewpoint. Touching on Žižek here shows that there have been recent ideational developments that bridge Christian ideas, leftist frameworks, and ideas of liberation—the last one approached by the Tiempos differently through their Christian background.

Žižek borrows from a psychoanalytic position when he writes that "In Lacanian terms, the difference here is the one between *idealization* and *sublimation*: false idealizing idealizes, it blinds itself to the other's weaknesses – or, rather, it blinds itself to the other as such, using the beloved as a blank screen on to which it projects its own phantasmagorical constructions; while true love accepts the beloved the way she or he is, merely putting her/him into the place of the Thing, the unconditional Object. As every true Christian knows, love is the *work* of love – the hard and arduous work of repeated 'uncoupling' in which, again and again, we have to disengage ourselves from the inertia that constrains us to identify with the particular order we were born into. Through the Christian work of compassionate love, we discern in what was hitherto a disturbing foreign body, tolerated and even modestly supported by us so that we were not too bothered by it, a subject, with its crushed dreams and desires – it is *this* Christian heritage of uncoupling that is threatened by today's 'fundamentalisms,' especially when they proclaim themselves Christian." (128-129) This quotation intersects with my proposed view of the Tiempos upholding the personal because this is not a denial of other overarching forces that influence lives. Though there is a focus on the personal, it is marked by the detachment, the *uncoupling* that Žižek writes about, that allows for a dynamic movement from the broad to the intimate – the structural to the personal.

A reconsideration of the epitaphs of the Tiempos will show that there is a relational and communal focus that can be found in the words. In the case of Edilberto's, the verses that lead up to the exclamation that is the epitaph has to do with the commitment of a shepherd to his sheep. The idea is that the sheep will not be left to perish alone and that the shepherd will be given extraordinary strength to face the dangers that might beset the sheep<sup>[6]</sup>.

On the other hand, the epitaph on Edith's tombstone is one that comes from a text that speaks of how the savior will come and redeem those who have been treated unjustly<sup>[7]</sup>. In fact, this is the precise scene that is depicted in the epitaph of Edith—there is a trust that the one speaking will meet the one who will take her from the difficulties of her situation. In a way, both epitaphs speak of a community in a less than ideal situation, as well as a trust placed in someone who will come for them.

What is interesting is that this person who will be there for others is what differs in the two epitaphs. In the quotation for Edilberto, the regular person is enabled to be "more than conquerors" by grace, while in the quotation for Edith, the person awaits the coming of the one who will bring the transformation. I personally would like to interpret the quotations as both significations of faith and commitment: the human being is an agent, but also one that is dependent on grace, and one that is gifted such by the presence in community and relationship.

What enables one to fully engage in community and relationship, I think, is the capacity to be conscious. A person must have a certain hold on subjectivity and agency in order to interact with others in a way that is liberating for the community. It is in this regard that I surmise that this might be the reason why the Tiempos encouraged a liberal and humanist take on education—because of the possibility that one might see one's independence and agency, and having these, enable people to relate well and justly with others.

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6 Romans 8: 35-39, King James Version: (35) "Who shall separate us from the love of Christ? *shall* tribulation or distress, or persecution, or famine, or nakedness, or peril, or the sword? / (36) As it is written, for thy sake we are killed all the day long; we are accounted as sheep for the slaughter. / (37) Nay, in all these things we are more than conquerors through him that loved us. / (38) For I am persuaded, that neither death, nor life, nor angels, nor principalities, nor powers, nor things present, nor things to come, / (39) Nor height / nor depth, nor any other creature, shall be able to separate us from the love of God, which is in Christ Jesus our Lord." The epitaph of Edilberto is to be found in verse 37.

7 Micah 7: 9, King James Version: "I will bear the indignation of the Lord, because I have sinned against him, until he plead my cause, and execute judgment for me: *he will bring me forth to the light, and I shall behold his righteousness.*" Only the italicized section appears on Edith's tombstone.

This is what Edilberto tells us of what a liberal education should be:

The first business of the university is the promotion of the expansion of the mind, for there is no true culture without acquisitions; in other words, the first business of a college student is the striving for enlargement, for illumination. This means acquiring a great deal of knowledge on a good number subjects, and translated into the program for a bachelor of arts degree it means about 147 units, or the equivalent of more than forty different courses. All this means a great deal of reading, a wide range of information. Matthew Arnold says that the function of criticism is the search and propagation of the best that is known and thought in the world in order to create a current of true and fresh ideas. Such a function is indeed the primary function of a university. This necessitates, for the student, the possession of a curious, exploring mind; a mind that can be both shocked into recognition of a folly or error, and startled into a new discovery; and finally a mind that dares to be challenged. A student with such a mind and with a willingness to buckle down to work has his university career more than half accomplished. ("On Liberal Education" 183-184)

Without saying it, the orientation of a student of liberal education would be relationality and its prerequisite openness. One receives and one responds in the most appropriate way possible. It is only through this that the Arnoldian invitation might be met: to be able to offer criticism, and be part of the "current of true and fresh ideas."

Edith, sharing Edilberto's ideas on liberal education, would manifest these in her writing about the creation of poetry, which must have what "a bright coherence":

Thus, when Robert Frost speaks up he does not say, "Love thy neighbor." Rather, he says in whimsical indirection and understatement, "Something there is that doesn't love a wall."

Something there is that doesn't love a wall and would want to tear it down. Like the Great Wall of Ancient China, the Bamboo Curtain of the China of today, the Iron Curtain of Russia. Our cryptic modern poet says, Speak, but not a pretty affirmation, not a formula like "Love thy neighbor." But more different than arresting, more cognizant of inhering complexity, our modern poet would speak and say, "Something there is that doesn't love a wall."

The ways of yesteryears, even the ways of writing and of saying things, are not for us today. We must make our own metaphors for thinking and living in our own age. Even the Bible has to have new translations to bring it closer to our modern experience and make it more meaningful to us.

Finally, in such a shaky atmosphere as ours today, the best poetry becomes a kind of crusading poetry that would preserve for man his finest and best self. Thus it is that all enduring poetry becomes tinged with the religious. We

scrutinize the significant poems of all times and find them inevitably religious. Even our own tough-minded modern poetry is religious and spiritual, often in its peculiar terms. For spiritual communion is the unity that holds together the most heterogenous elements, whether in the diversified macrocosm of society or in the no less diversified microcosm of the inner person. (Edith Tiempo, "A Bright Coherence" 107)

From the lengthy quotation, we find Edith's own application of liberal education in the discipline of poetry—the search for new poetic expressions and being aware of what had come before, the continuous need to make things contemporary and relatable. The call towards the religious can also be found here—hence the reference to Christianity and the psalms. One will also find here a discreet calling out of what Edith might have viewed as something that might go against the liberal vision of individual agency—references to the Iron Curtain and the Bamboo Curtain.

The metaphorical references to the Soviet Union and China in middle of the 20th century, I think, imply Edith's possible preference for a politics other than the positioning of these countries, which would be Maoist and Leninist, involving the proletariat and the peasantry in the a cultural revolution that is supposed to eliminate determined feudal forces, all to promote a more communal way of life.

In this regard, I think it will be fair to reexamine whether the kind of writing advocated for by the Tiempo couple was truly apolitical or not. The fact that Edith speaks of contemporary realities in relation to writing, as well as Edilberto's adherence to an idea of Matthew Arnold, who was certainly not an "art for art's sake" figure<sup>[8]</sup>, will lead us once again to reexamine the adherence of the couple to the New Criticism.

Writing about the charge that the Tiempos were "propagating a purportedly politically impotent movement of literary criticism," Cruz presents the sides of the accusation:

On the one hand, the New Critical belief in the autonomy of literature tends to function as a convenient shorthand to justify the easy dismissal of the Tiempo school as indifferent to socio-historical realities in general, and the nationalist project in particular. On the other hand, the primacy of craft as the content of a creative writing education serves as a catchall explanation for the lack of

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8 National Artist for Literature Bienvenido Lumera makes a distinction of the criticism of Arnold and the notion of "art for art's sake." Modernist standards, set by Western artists reacting against commercialism and the worship of technology in the industrialized economies of their society, were appropriated as norms for young Filipino writers seeking to keep abreast of the times. For instance, when the UP Writers Club was founded in the late 1920s, it borrowed its artistic credo, "Art for Art's Sake," from turn-of-the-century Western artists who wanted to break away from the hold of Matthew Arnold's concept of literature as a "criticism of life" (186)

emphasis on social consciousness in the Tiempos's pedagogy. Both arguments rely on the deadlock that pits aesthetic against political investments and maintain that the Tiempos, for better or for worse, privileged the former over the latter. (6)

It has already been asserted by other critics that the Tiempos had made New Criticism their own. However, I think that a return to the words of Edilberto himself shows us how he really viewed writing:

The creative artist is not a chronicler; he synthesizes what has been recorded. He plows through the confused details and chooses only those that are relevant; he organizes them to achieve order and coherence and point up their meaning and significance as dramatized in terms of credible interrelationships among the personae, and to compel belief through the work's integrity. The author of a novel which deals with a Filipino family through three generations, from the Philippine Revolution and the Philippine-American War to the two world wars, received a high compliment when Ansuri Nawawi, an Indonesian visiting professor at Silliman University who holds a Ph.D in Political Science from Princeton, said, "I have learned more about the Philippines and its people from that novel than from any Philippine history book I have read." ("People Power and the Creative Writer" 28)

From the above, it is clear that the writer takes material from the substance of real life. In the case of writing *To Be Free*, it probably would not have been possible to divorce oneself from tackling political issues, on which the anti-imperialist concerns of Cruz would be inextricably related.

For Tiempo, one writes because it is intended to serve a function in society.<sup>[9]</sup> How can this be apolitical? He writes in the same speech from which the above was lifted, "to understand the role of the artistic writer as a contributor to People Power, we should be able to see first his contribution as the writer's responsibility in humanizing people's perceptions, not only of other people, but also of events and, ultimately, history." (29)

It certainly looks plausible that the Tiempos had a purpose for their writing, and it was to make one sensitive to the needs of others, with the intent of making good of that sensitivity in society. This is clearly not

9 In an email dated September 3, 2020, writer, administrator and critic Jaime An Lim shares a memory that proves the above point. He writes, The Tiempos were not always formalist. For instance, at one time Dr. Ed Tiempo criticized a well-written but "sexually racy" piece of work as a waste of the writer's creative talent. He saw literature as a vehicle for a more useful end. This was clearly not formalist anymore but already verging on the ethical and moral considerations. Moreover, he knew a wide range of critical theories. I took his graduate course in Literary Criticism which covered some of the important critics and critical concepts from Plato and Aristotle and Longinus to Shelley and Sydney and Arnold and Marx and Eliot and Brooks, etc." The range of Edilberto's readings in criticism and theory from this email must be considered as well.



apolitical—and hence I must say clearly that to focus on this assertion is a regrettable error on the part of Cruz. The politics might have been focused on the relational, but certainly the *Tiempos* were not apolitical writers, nor was their teaching of writing apolitical.

If ever there was a focus on form, it was for the sake of the delivery of ideas that are humanized and relatable to readers. This alone, according to Edilberto, might have a profound and transformational effect on readers:

The ideas preserved in the best literature that the 3,000 years have produced do not conflict with the Christian ethics; on the contrary, the best literature and Christian ethics complement each other; and on points where they converge, they produce the transformation that comes with an encounter with greatness; they may produce a conversion through the illumination of the spirit. If the best literature may not “save a soul” in the theological sense, still it is enough that the best literature awakens a keener awareness of life and the world and of the sense of goodness and truth and beauty. Jesus was angry with those who had eyes but saw them not, with those who had ears but heard not. I think it is demanded of us, as students in a Christian university, to develop ears that hear, eyes that see, minds and quicken, hearts that can laugh and weep. And one excellent ground for this nurture is great literature. (“The Christian Faith and Literature” 242)

It should come as no surprise that Edilberto connects the Christian faith and literature as he sees that the function of literature is to make the heart sensitive and, hopefully, lead one to human transformation that will be of good to society.

The *Tiempos*, it may be said, had taken what they need from New Criticism—the ability to create an effective means of communication—as well as the strengths of a liberal education in order to be able to write humanizing pieces that are transformational. This, I would like to assert, is the liberal humanist theory behind the Silliman Workshop, and this is what Cruz, with her insistence on her particular lens, might not see.

### ***The Combination of Modes of Expression***

It is fair to ask—if such is a *Tiempo* theory of literature and creative writing, then what would be its praxis? It will be safe to say that it was the Silliman Workshop and their own creative practice. And a closer look at the workshop will not be close enough if one does not see that the notion of family is something associated with it. Before proceeding to this topic, it will be good to take a look at an aspect of the liberal humanist education that the *Tiempos*

espoused, which put it in a suspicious feudal and imperialist mold—the role of English in the workshop.

English was known to be the language of the Silliman Workshop. Until recently, only works in this language were accepted for discussion. According to an email by Jaime An Lim, writer and former Silliman Workshop Director, it was in the year 2018 when the workshop accepted *balak*, poetry in Cebuano, for workshop applications. I believe that this shift is an important one; however, it needs to be considered in light of the reasons behind the use of English.

The primary reason behind Cruz's focus on English as the language of the Silliman Workshop, as already stated in her assessment of Edilberto Tiempo, has anti-imperialist motives as impetus. Based on Cruz's assessment, the formation of the Anglo-American Canon that was accessible to Filipinos early in the twentieth century was formative, and the formation had both language and values in view. Though her assessment of Edilberto might not be fair, it is valid that she problematizes the choice of language: because of the closeness of the formation of language use and the actuations of the person learning English, one might as well say that the use of language is reflective of character.

What Cruz would have wanted to happen was that the Tiempos unpack this relationship between language and life as an anti-imperialist stance—hence, subject English to variation from the Standard English that the couple was teaching at the workshop. However, for Cruz, there is no openness to variation in the language, which does not conform with the notion of heteroglossia, reflective of a cacophony of voices within a particular social context. (23)

I propose that, though this idea is a good one to explore, perhaps Cruz was expecting the Tiempos to act the way her structural vision compels her to. This is because Cruz seems to be focused on the linguistic mode of expression in her vision of the theoretical concept of heteroglossia, whereas Edith was encouraging—as early as the 1960s—a combination of disciplines as a means of creating something new. One key to the Tiempos, I think, is to consider that they were more than focused on literary matters. Understanding their literary work involves being familiar with their other commitments and interests.

The dichotomy of divided writing that Cruz does well to point out in Edith's essay "The Use of English in Philippine Creative Writing" can be supplemented well by a set of remarks given during a folk music conference once given at Silliman University:

One great danger from our times is the tendency to separate the form from the spirit in our thinking. As seen in the procedures of art, this deplorable tendency is displayed by some of our artists today in the dichotomy of form from substance, or technique from feeling. This dichotomy or separation is evident today in the strong emphasis upon form, often without the corresponding life and spirit in the artistic work. And ironically enough, it is this very life and spirit which can quicken the art and make it communicate itself and move people to respond.

Folk music does not have this trouble at all, of course. No one can accuse a folk song of being pure form and having little or no spirit. Quite the contrary. Folk music is almost absolutely unguarded expression of a people's spirit in every type of mood: The folk music in countries of the world over show this spontaneous outpouring....

Let us turn away from the great danger of our times, the danger of separation from feeling, of looking on unmoved at the crucial issues of our day; the danger of looking on at cruelty and imminent disaster, and at man's inhumanity to man, as if these were mere ideas, mere items of knowledge that have no power to touch us, to move us to tears or to rage or to indignation. This is our danger. This is the terrible dichotomy whose warnings are echoed today in the divided performance of many an artist and many a scientist, both. And the study and appreciation of our folk music is surely a step toward this return to sensibility. (Edith Tiempo, "When Music Sings in the Hearts of the People 21)

This lengthy but key portion in "When Music Sings in the Hearts of the People" speaks of a notion of spirit that animates a community, and which leads to the formation of a particular song, which is not the same as the one written according to the traditions we have received through Europe and the United States. By extension, Edith's suggestion for the writer is to be immersed in this music from the folk and let it inform what must be the content *and form*.

If the language taken from what is known as the West is taken and broken into through an immersion not only in folk stories and images, but also folk melodies and rhythms, then would that not be a combination of modes of expression that will result in something hybrid? The colonized one, therefore, can use such hybrid material as performance against the colonizer, all in light of the linguistic turn which can consider the materials of music as comprising a kind of language.

Though there will be scholars who will insist on the music-ness of folk music (perhaps in a range of what can be called by musicologists as musics), it can be argued that it has a function of signification in the way language signifies. This will make it possible for me and others to read Edith's poetic

work as heteroglossic because it employs elements from a multimodal range which expresses various voices from her community.

I wish to illustrate this by expanding her own discussion of the poem “The Pestle,” (Edith Tiempo, “The Pestle”) which I personally claim to be a poem that can be read to contain nationalist and anti-imperial significations. I quote this important poem in full; it is relatively short, and there are no stanza breaks:

#### THE PESTLE

...in the beginning the sky hung low over the earth...and the woman took off her beads and her crescent comb and hung them up on the sky, the more freely to work. As her pestle struck the blur arch again and again, it began to rise, rise...

– The Origin of the Moon and the Stars, A Philippine Myth

...the bamboo split and out stepped Malakas [Strong] and Maganda [Beautiful], the first man and woman.

– The Story of the Creation, A Philippine Myth

On the bank the wash-stick is beating out time,  
Time and wise words and riddles in a wooden rime;  
Why should he listen, just to cross its dark message! If he,  
A good smith beating his tempered muscles into plows,  
And she (in prayers), folding her mildewed safety between bleached vows,  
Once wrought for Beauty and Strength, if they be  
Splinters from the cracked bamboo,  
They shouldn't listen to that crude tattoo!  
To grapevine its heresies through some crumbling bole –  
Why should they?—they, the divine stems? Yet strange, he stokes the fires,  
Burns himself in a thousand spots. He is not done.  
And she?—he sees her rinsed-out fears a whole  
White line slacked, flopping through the mire.  
Old woman, best leave the wash-stick in the sun;  
(The pestle pushed the thigh-bone comb  
And the beads of clay high, too high)  
Our tough hands shake and our sweaty lips smirk and lie,  
We had stored our treasures in a maggoty home.

Edith, without saying it, offers her own reading of this work in the key essay “Myth in Philippine Literature,” which tells us that the way to cross the divide created by language and culture is through accessing the universal images that connect us, presumably via the collective unconscious:

One common Philippine myth, the myth of creation, can give body to the idea of the impact of industrialism on the local sensibility, which is generally

characterized as gentle and unsophisticated. Instead of an outright dramatization of this idea in a story or a poem (a procedure which would leave the outward terms of the situation strange and unreconciled to alien eyes, unless indeed made more detailed than artistic propriety would advise), the myth of Malakas and Maganda coming out of a split bamboo can be most happily used as a basis. Then one can rely on the universality of human behavior thus exposed in primitive terms; also one can take full advantage of the ironical connotations attached to the “bamboo underpinnings” evident in so many of our enterprises today, as contrasted with the steel rods and trappings of industrial efficiency. (265)

While Edith focuses on the content of the poem within the excerpt above, I would like to call attention to the internal rhythm that supports the whole poem. The rhythm is built only on strong-sounding consonants like d and b, but also soft-sounding ones such as m, as well as repeated vowel sounds.

Indeed, this might be the tattoo that Edith refers to in the middle of the poem.

I believe that her use of repetition, which is ambiguous in its signification of both cold industrial machines and repeated beating of the wash-stick by the river, is indicative of her efforts at multimodality, combining materials from music and language (Edith Tiempo, “When Music Sings in the Hearts of the People” 23-24). In any case, the structures of Standard English might be considered broken because of the repetitions of words and poetic torquing that happens because Edith was following a distinct internal rhythm.

The quoted excerpt from “Myth in Philippine Literature” indicates that the reading of the poem might be framed in terms of the issues brought about by industrialization and class struggle in a primarily agricultural nation such as ours. However, I would consider it leaning towards a nationalist and anti-imperialist statement by virtue of the thigh-bone comb that is pushed away when the clouds go higher because of the up and down motion of the pestle used to separate chaff from the rice. The tines of the comb subtly indicate stripes, whereas the baked beads that hang with the comb—could those be stars?

The multimodal reading that I offered above will not suffice for an anti-imperialist reading premised on the pushing away of “stars and stripes,” so I choose to be frank and say that, in my conversations with Edith, she has told me of her determination to retain her Filipino culture—even in the way people address each other—not only when she was studying in the US, but also when she was studying with the American teachers at Silliman University.

Going beyond this and moving into her life context, husband Edilberto was also someone to problematize what it is to be Filipino. It is not well known these days that he had clearly presented his stakes about the national language in 1983, when he published the essay, “Tagalog: the Fourth Colonization,” in *Panorama Magazine*.

It is clear from the title that Edilberto refused to be dominated, indicating that the imposition of Tagalog as the basis, for the national language goes against the idea of freedom. He writes that “the allegation by the Tagalistas that English is the language of the elite is mindless and myopic; they seem to forget that propagating a Tagalog-based national language is creating their own brand of elitism” (“Tagalog: The Fourth Colonization” 214). It might be safe to say that the sting of colonization was still felt by the Tiempo couple, after all.<sup>[10]</sup>

It was Edith’s choice to retain manners Filipino and the concern for quashing the colonial and its extensions that Edilberto must have shared with her, that I take as handle for an anti-imperialist reading. Without a doubt, this also makes sense in light of that bigger act of moving back to the Philippines with Edilberto and her children even if options for her family to stay in the US had opened up.

Overall, the above details will place the use of English by the Tiempo couple and the Silliman Workshop under a different light—and it might add a dimension to Cruz’s take that it was an imperialist tool that the Tiempos were not able to address.

### ***Reading the Family in the Silliman Workshop Context***

Returning to the concern for a different political approach to the search for greater freedom, I am proposing that the Tiempos did not focus on creating a structure that would go against feudal and imperialist forces. However,

10 What might be considered problematic in Edilberto’s notable argumentation is the idea that education is available to all of people elect to go to school. These days, poverty and other structural imbalances continue to make this difficult. However, what we must put our attention to is the likely intensity of the debate, so much so that it merited a non-mention from a well-known teacher from the University of the Philippines, SV Epistola, who proposed another way of going about the national language problem. “Instead of making a nation out of us, this only disunited us even further. Instead of breaking down the barriers that divide us, it has in effect made them even more implacable. Predictably someone in Dumaguete declared he would never submit to another colonialism, which sadly was how he perceived the propagation of a Tagalog-based national language.” (122) For Epistola, the solution was to have one national language and promote the reading of regional literature. Personally, I find the proposal problematic given that it does not address the signification of Tagalog being the basis of the national language. In any case, I present the stinging quote above in order to open up spaces to discuss the commitments of Edilberto on language as well the nation.

the relationality that could be read from their Christian orientation, as well as their commitment to the return to local materials and interactions, must have led to what might be a logical return to the fundamental family structure, the basic unit of Philippine society.

The Silliman Workshop has long been known to be built on the family image. Edilberto was called Dad, and Edith Mom. I called them by these appellations even if I did not meet Edilberto in the flesh, not all workshop fellows did. I think that the family structure is easily relatable to the fact that Edith had miscarriages during the war, a fact of her life that would be reborn into poems such as “Lament for the Littlest Fellow.” However, to say this would be to immediately stop looking at other aspects of the Tiempos’ life that might enrich our understanding why the workshop was viewed as family.

Not all workshop fellows felt that they were part of a family structure, to be sure. To look at the Silliman Workshop and immediately associate it with the family might then be inappropriate although it would be on point to speak of it as a nurturing environment<sup>[11]</sup>. There are many stories that attest to the sense of nourishment one got from the Silliman Workshop. It was not just being fed in terms of knowledge, nor was it just about food. It was such a well-rounded experience that one might as well call family. The writer Merlie Alunan, in an email dated September 4, 2020, elaborates on how it was to be at the Tiempos’ old family home in Amigo Subdivision, Dumaguete:

Ed and Edith drew people into their circle, like moth to candle flame. It was probably out of mutual need. People attracted to literature rarely find good company anywhere they go in the world. In the environs of the Tiempo home, especially in the old Amigo house, literature breathed down upon one’s head from the santol and the mango trees that Ed had tended with so much love, the old furniture, the paintings, Mom Edith’s special way with her table, the little touches of refinement on china and sparkling fresh fruit drinks they loved to serve. One’s soul is fed, as well as the body. Conversation under the trees, under the moon,

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11 Jaime An Lim, who would become one of the foundational persons behind the Iligan National Writers Workshop, presented me with possible explanations aside from making it clear that not all the fellows felt that the workshop had a family structure. The following comes from an email from An Lim dated September 1, 2020: “During my time as an MA student, I never called the Tiempos Dad and Mom. I saw them first and foremost as my professors not as my parents. There were those who worked closely with them, helping out with the running of the workshop, etc.) and they perhaps felt entitled to call them Dad and Mom. I don’t know. I was never encouraged to call them that. But they were always kind to me and helpful in any way they could (getting me a scholarship, writing a recommendation letter, etc.) Because Silliman U was a relatively small university, they did not have so many students (there were only less than 15 MA students during my time) and could afford to give personal attention to every student. In a much bigger university (UP, Ateneo, La Salle) this might not be possible. But the workshop itself was more collegial rather than familial. When they discussed anyone’s work, that person was treated as a writer rather than as a son or a daughter. Rowena, the daughter of the Tiempos, was also a student at Silliman. The Tiempos were of course Dad and Mom to Rowena, so the other students probably got the cue from her and started calling them also as Dad and Mom.

with the noontime serenade of the cicadas in the background scintillated. They lingered in the memory. Until now these memories are still with me. Where but in Amigo can you savor the refined air of poetry, not just in a book but as it is lived?

It was not only at the table that fellows feel like family. The dynamics of the relationship, if I might say so, had an inward and outward motion. It was as if one gave and one received both. Anthony Tan writes via Facebook Messenger, “Dad would go to the airport/wharf to welcome the arriving fellow. Cesar Aquino<sup>[12]</sup> was so impressed by this gesture of generosity and hospitality that he wrote a glowing tribute to Dad and called him ‘a man whose heart was as large as Africa.’ No other workshops/heads of workshops that I know of, would do this. They usually send their staff/subalterns to pick up the writing fellows.”

There are many more former fellows of the workshop who can say more about the nurturing quality of the relationship with the Tiempos. However, perhaps the one who might be able to represent best what was the workshop family is the late Ernesto Superal Yee, who had written a short story illustrating the relationship. It is unabashedly titled “Valencia Drive: A Tribute to Dad.” A good part of the story illustrates similar memories as some details of the story, but Yee was able to direct the reader towards what the purpose of such nourishing was –the hopes of forming a more well-rounded writer and person:

Now it was time to write fiction. His first attempt (which was actually a mutant of that genre), was mildly criticized by Dad as lazy writing. After the session, Dad told him, Myles, if you can write a poem, then you shouldn’t find it hard to write fiction. Give the writing of stories the same amount of drive, energy and love as you do for your poems. If you can do that, show me your work. And while doing it, keep in mind the artisans at work. He who holds a blowtorch endures heat and glare while melding two edges of steel to form a design; and he who has conquered his fear of heights may measure space’s precise length and width from which his structure shall rise. Dad was right. The work he submitted was haphazardly done. After supper, Myles, bearing seriously Dad’s words, tackled the dizzying and crafty art of fiction. The revised work entitled “Anniversary,” although there was a minor obscurity that Dad wanted cleared (nothing Freudian about it!), got Dad’s warmest smile and hug of congratulation. (Yee 52)

It might be said that the “amount of drive, energy and love” that Edilberto calls from Yee, who gave himself the name Myles (in reference to

12 Cesar Ruiz Aquino, one of the earliest fellows of the Silliman Workshop, was also said to have looked for potential students from his home of Zamboanga upon being instructed by the Tiempos. It is through this action that the late poet Francis “Butch” Macansantos had an opportunity to study under the Tiempos. This is how Macansantos’s daughter Monica, herself a writer, recalls her father’s story, which shared via Facebook Messenger on August 30, 2020.



the Frost poem “Stopping by Woods on a Snowy Evening,” maybe?) is the same thing called for when Mom and Dad Tiempo ask him to drive up the mountain of Valencia town in Negros Oriental. The story, which happens internally, is really just about a car drive up challenging terrain. Yee’s character surmounts the challenge—and the writing challenges too—because of nurturing presence of the Silliman Workshop parents<sup>[13]</sup>.

The closeness that is developed through nurturing makes the following words of Cruz particularly hurtful:

The filial logic that camouflages the colonialist enterprise embedded in the institutional history of the Silliman Workshop is replicated in the logic that deflects criticism of its institutional power over the literature produced, circulated, awarded, and studied in the Philippines. It is awkward, at the very least, to cast a critical eye on the legacy of a literary figure one has been taught to call “Mom” on the workings of a community one has been invited to regard as family. It is no wonder that the writings on the Tiempos by those they mentored tend toward hagiography. To regard the Silliman Workshop as family, while inspiring affection and harmony, also naturalizes a culture of deference and loyalty in an institutional setting. (15)

However, the call of criticality tells me that there is more. Firstly, it was not simply a camouflage, but a lived nurturing reality, which grew for some into a family relationship. To speak of a family relationship and say that what comes out of it in terms of writing is hagiographical is an unbalanced conjecture. The reason for this is that though affection might be seen, it does not mean that it always a condition towards deference. In fact, can the fullness of a family relationship not end up with individuals who exercise their own agency, utilize their independent judgment?

Anthony Tan, when asked about the expectations of the Tiempo couple on their writer students, gives the following response on the side of agency in his Facebook Message dated September 4, 2020:

Absolute autonomy. Write what you know best, in the language you are most capable of using. Choose your own genre which befits your abilities.....That’s what students learn in workshops. You can’t learn that from books. They didn’t stop me from writing my “Sulu” stories. I don’t think they really “love” the subject, especially Mom Edith, but they didn’t tell me: “Hey,

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13 It needs mentioning that Susan Lara, during a piano recital and tribute to Ernie Yee that I delivered in Silliman University on May 9, 2019, gave a tribute to him, which included these words: “He was generous with everything he had—time, energy, talent, yes, even money—in everything he did, as writer, as pianist, as panelist in the National Writers Workshop (and for several years, as Workshop coordinator), as lawyer, as RTC clerk of court, as friend. During those years when the Workshop had to operate on a shoestring budget, Ernie helped out by sponsoring a number of workshop fellows and hosting them in his home in Dumaguete.”

leave that subject alone.” They respected my choice.

Besides, I am sure they saw that that is the only subject close to me since I am from that place. They respected my choice.....When “The Cargo,” my story about Sulu massacre at sea was going to be anthologized, Dad Ed was asked by the editors Jaime An Lim and Christine Ortega to write the intro. Dad Ed thought—in that intro—that I had written a very good story in “The Cargo.” The subject is a violent, gory one which could only be found in Sulu. So write what you know best, was a kind of unwritten law to them, and in a language that you know best, and in a genre which befits your talent.

This autonomy extended well beyond the writing life. As there is no separation between both, the students also had the freedom to exercise their own choices when it came to the visions that are the foundation of their endeavors.

It is notable that the Silliman Workshop, according to An Lim, gave birth to many workshops, stating that “it has spawned numerous local, regional, or national counterparts at UP Diliman, UP Mindanao, UP Tacloban, UP Iloilo, La Salle Manila, La Salle Bacolod, UST, Ateneo de Manila University, University of San Carlos, Far Eastern University, MSU-IIT, not to mention the various workshops sponsored by such literary groups as LIRA or Linangan sa Imahen, Retorika, at Anyo. As a whole, these writers workshop have had arguably some impact on the development and direction of creative writing in the country.” (An Lim, “Keynote Address”)

What must not be consigned to forgetfulness is that the above workshops specialize in the encouragement of writing in the regional languages. This surely resonates with Tan’s assertion above that the Tiempo couple was not particular about the writing student’s language of choice, but one can immediately see that the couple did not exert control outwardly and otherwise. How can we therefore assume that the family relationship necessarily brings about deference<sup>[14]</sup>?

According to Edilberto as narrated by Yee, what enables the creation of a work of art is love. What is passed on through the nurturing and the family relationship within the Silliman Workshop community, in its different

14 The ideas of Judith Butler, though mostly based on theorizing that is distant from our lived reality, provides a useful parallel to the family relationship that was borne out of the Silliman workshop. For Butler, a subject begets a subject; and in the discussion above, a parent who is a subject will produce a child who will come to one’s own power and be a subject. According to Butler, “a critical analysis of subjection involves: (1) an account of the way regulatory power maintains subjects in subordination by producing and exploiting the demand for continuity, visibility, and place; (2) recognition that the subject produced as continuous, visible, and located is nevertheless haunted by an inassimilable remainder, a melancholia that marks the limits of subjectivation; (3) an account of the iterability of the subject that shows how agency may well consist in opposing and transforming the social terms by which it spawned.” (29)

degrees and appellations, is love. It is this that allows for the students and writing children to be their own human agents, and it is this dynamic agency that has arguably enabled the rise of many workshops that put into question the idea that the Silliman Workshop propagates a feudal system and the American imperialist agenda.

Could the love fostered in the Silliman Workshop, being a parent-workshop, have contributed to decolonizing motions in the country via the nurturing of literature in the regional languages? This kind of idea is not an implausible one, if only through the lens of other people proposing similar theories. In fact, love as a decolonizing factor is a key concept in Chela Sandoval's *Methodology of the Oppressed*, which views the wounds that love creates in a colonized context as Barthesian puncti from which decolonial *movidas* come about<sup>[15]</sup> (139-140).

What about the idea that the workshop has “gatekeepers?” I personally would think that any endeavor bound by various resources will always have limits, and the *padrino* system might always take place because of the vulnerability of human actors. Still, one needs to listen more. For example, my own recommendation to the workshop came from the writer Alfred “Krip” Yuson, whom Cruz criticized for his elaboration of the idea of the workshop family. I did not feel that *padrino* system she speaks of protect me when Ernie Yee, a member of the selection committee, told me that I was not top-ranked by the selection committee in 2003<sup>[16]</sup>.

Yuson, in a Facebook Messenger chat dated September 13, 2020, wrote me the following: “The matter of recommending? That came naturally. Former fellows and panelists would of course be an important source of dissemination about the workshop, and thus encourage friends and acquaintances to try getting in. Those who seemed impressive were recommended or required to come up with the note of support from workshop alumni or distinguished academics / lit profs / writers. *Siempre* it

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15 Chela Sandoval, considering the idea of punctum, makes this clear and moving statement: “It is love that can access and guide our theoretical and political “*movidas*”—revolutionary maneuvers towards decolonized being. Indeed, Barthes thinks that access to the spectrum from which consciousness-in-resistance emanates might best materialize in a moment of “hypnosis,” like that which occurs when one is first overwhelmed or engulfed by love.” The moment when one is “first overwhelmed or engulfed by love”—one can find the *punctum* there.

16 I remember sitting in with Ernie Yee, Bobby Flores Villasis, and Cesar Ruiz Aquino during one screening committee deliberation – likely for the Silliman Workshop in 2004. I also remember seeing committee members sift through the recommendations, and even disagree with some of them. What I remember most was a conversation with Ernie Yee. He told me that the panel gave writers whose works were exemplar higher ranks, while selecting others whose works showed indications of benefitting from the workshop.

would turn into what was eventually condemned as ‘gatekeeping.’ But how else could info about the workshop spread out? But the evaluation for final fellowship selection was mainly based on manuscript quality. A factor was regional distribution.”

It was clear from the online chat that Yuson views “gatekeeping” and the *padrino* system was connected to the Silliman Workshop’s way of dissemination. To me, these are aligned with the idea that the Tiempos had prioritized relationality as part of a Christian-Liberal Humanist-Filipino approach— wherein love and the fascination for the literary work would have a place. As mentioned earlier, human actors are vulnerable. The fact that the Silliman Workshop had a safeguard in the screening committee must, however, be considered as a positive point.

I see the risk of the feudal possibilities that Cruz decries. This is also something that is clearly reflected in the thoughts of Sison, mentioned earlier, about how family becomes the means through which feudal relations are replicated. I think it prudent to return to the Tiempos’ philosophical perspective and give appropriate focus on individual agency when passing critical judgment on the matter while facing head-on the theorizing of structural power and dominance.

The individual actions taken by Edilberto in his own quest for freedom, I find it worth noting, could have come to fruit in the promotion of regional languages which he and Edith did not write with because of certain turns in their lived reality—including their having come from different provinces. It is entirely possible that coming to fruit happened through the family relationship that Cruz simply judged as “camouflage,” which might be the operationalization of the optic through which the Tiempos lived and taught, and which had its own vulnerabilities because of the focus on human actors.

## Ending by Way of Story

There are three things that I wish to do as I conclude this critical analysis.

The first of these is to make clear ideas that arose while trying to listen carefully to “The (Mis)Education of the Filipino Writer”:

1. Firstly, it is not fair to frame the Silliman Workshop under the aegis of American Cultural Diplomacy without an attempt to

formulate the approach of the Tiempos to creative writing. This, I theorize to be based on Christian, liberal humanist, and Filipino elements that still need to be accounted for better in the future.

2. The second point is that for the Tiempos, writing is always integrated with one's life experience, and politics is part of life. This idea, which resonates with Constantino, should be a clear indication that the Tiempos, though they utilized New Criticism, were not New Critics and not apolitical.
3. Interpreting the choice for English in the Silliman Workshop should factor in the high-level debate about the choice for the national language, and a perceived inclination of the Tiempos towards interdisciplinarity. Upon looking closely at their work, it might be seen that they might have worked, consciously or not, towards a multimodal heteroglossia, which enables anti-imperialist gestures beyond language.
4. The last point I wish to make is that the family quality of the Silliman Workshop, though not something shared by all workshop fellows, is something that needs a closer examination. From my viewpoint, because of the element of love, there is something that makes the Silliman Workshop both transformative and vulnerable on many levels. It so happens that there has been a transformation of the Philippine writing scene, thanks to students of the Tiempos institutionalizing workshops that nurture the regional languages. Though the possibility of the padrino system is a vulnerability rooted in the focus on relationality, there might be something anti-imperialist in the Silliman Workshop after all.

The second major point I wish to make is that there might be a view that it is impossible to find middle ground between the Christian-Liberal Humanist-Filipino approach that the Tiempos used, and strictly structural approaches to feudalism and imperialism. I would think that Cruz, for all the possible good that anti-imperialist criticism can bring, might have been caught in the dichotomy because she had clearly taken one side.

My only wish is that it creates a dwelling—a new space—within the difficulty. What best represents this for me is the framework I had chosen for this paper. We must always make space for one another, even in our criticism

and theory, and focus on *pakikipagloob*. It may seem to have a harmonizing function, but that is not the end goal. What is important is to make space for one another in a world where people wrest power and resources from others. Perhaps the expression *irog-irog* might work as a gentle reminder. Perhaps criticism can be geared towards listening and making space in discourse, not just the assault and wresting of power that seems associated with it.

The final point I wish to make is that that the answers we look for might be elsewhere. In the case of the Tiempos – how would it have been possible for me to see that their interdisciplinarity could have resulted in a multimodality, which might just be another way towards an anti-imperialist project?

Let me end with a story. Mom Edith Tiempo and Ernie Yee were once invited to judge a literary contest in Tagbilaran, Bohol. Ernie took me along perhaps so that he could have a companion when Mom Edith spent time with Ma'am Marj Evasco, who is a Bol-anon, and other friends in the city. After the judging was done, and while Mom Edith and Ernie were asleep in their respective rooms—or so I thought—I went down to the empty ballroom of our hotel to try the grand piano.

I was overeager back then to take lessons again, though Ernie, himself a pianist, wondered at how I could make time to practice. I had my MA studies and my involvement with workshop-related matters to attend to. I played Mozart's Sonata K 545, movement 1. I remember how uneven the tempo was, how I infused the playing with a passion that I would most likely temper now. Lo and behold, Mom Edith entered the ballroom and approached me, watching closely until I finished the movement.

What I remember most are her words: "You play like a college student!" My familiarity with her approach told me that she was both encouraging me and challenging me. After this, we would have conversations about music back in Dumaguete, which culminated with the advice that I should not let go of my music.

She taught me poetry at the workshop, Mom Edith, but her most direct piece of advice was to keep my music going. If I did not heed her advice, I would not be in a graduate program in musicology now. Without concepts from musicology, how could I even begin to have a fuller appreciation of the Tiempos' lifework as an iteration of the dynamic connection between creative writing and nationalism?

If we don't step away from perspectives that we are inclined to, how might we find new ways of understanding?

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## **A Brief Note on Contemporary Philippine Local Governance and Politics**

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**A**t the outset, this brief note answers three compelling questions on governance in a decentralized setting like the Philippines where much of the powers previously exercised by the central government have been devolved to local government units. First, I seek to explain how the process of translating policy into action takes place and how various sectors and institutions affect the implementation and coordination of policy. Second, I seek to examine how monitoring and evaluation informs the crafting of policy and its crucial role in enhancing the relevance, efficiency, and effectivity of policy reforms. Finally, I seek to enquire into how networks between private, public, and civil society stakeholders shape governance and the process of policy-making. I choose to answer these questions contextually. This would not only lead to answers that are clear and unequivocal, but more importantly, permit a more realistic discussion of the questions.

So, just exactly, how do we explain the process of translating policy into action? And, how do sectors, scales, and institutions affect policy implementation and coordination?

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Carl Friedrich (as cited in Anderson, 1984), defined policy as follows:

a proposed course of action of a person, group, or government within a given environment providing obstacles and opportunities which the policy was proposed to utilize and overcome in an effort to reach a goal or realize an objective or a purpose.

In this operational definition of policy provided by Friedrich, it makes clear that a policy is a course of action that is directed towards the achievement of a particular goal. Moreover, this definition suggests that policies are purposive in nature and character, allowing those who have formulated it and are following it to deal with an identified problem or dilemma. It follows then that a public policy is a set of purposive action(s) taken by government and non-government entities in order to remedy sectional or public concerns. For a more realistic response, let us take for example a budget of a local government unit in the Philippine setting.

A budget, according to Ilago (2005), is a government policy document, which reflects efforts of government and non-government actors to address social maladies like poverty. This document of public spending is crucial in reducing, if not, completely eradicating poverty. The process of coming up with a budget is one which is not only tedious but also contested. This process involves the following stages: (1) Budget Preparation, (2) Budget Authorization, (3) Budget Review, (4) Budget Execution, and (5) Budget Accountability. The translation of the government policy embodied in the budget takes place in the fourth stage, which is the budget execution stage. It is in this stage that the actual release and disbursement of funds for specific commitments, undertakings, and functions of the LGU take place. However, it is important to underscore that each stage in the budget process is an entry point for civil society organizations (CSO) to participate in order to ensure that the document of public policy which is of immense public interest has all the marks of transparency, accountability, and responsiveness (Brillantes, 2007). Involving the communities through various NGOs, POs, private sector organizations, and business groups that are jointly denoted as civil society in the governance process is an essential element in the total decentralization project of the Philippine government which culminated after the successful overthrow of Ferdinand Marcos. The decentralization of the bureaucracy after

the democratic transition in 1986 was seen as a significant effort to open political space after more than a decade of centralized rule (Yilmaz & Venugopal, 2010; Brillantes & Sonco, 2005). No less than the 1987 Constitution (Art XIII sec 16) enshrines autonomy as a state principle, while the Local Government Code (LGC) specifies a framework for increased local autonomy through provisions that assign previously central functions to the LGU, sharing of national revenues, leeway to generate its own financial resources, and the participation of civil society in various governance mechanisms. Participatory governance or people empowerment is the practice of providing a platform and a wide latitude for CSOs to participate in the process of governance. Barns (2003) referred to this as engaged governance, which he defined as follows:

the attempt to draw on social capital in support of development management, through links between the public and government institutions on the one hand, and the NGOs, civil society, private business, academe, and other groups, on the other hand.

In the context of the budget process, CSOs participate in this governance process through the various local councils and special bodies created by the Local Government Code for them to interface. The LGC guarantees 25% of the membership in the Local Development Council to CSOs. Brillantes (2007) noted that in the past, CSOs were allowed 25% of the seats (maximum), but in the present LGC they are allowed 25% of the seats (minimum). The institutionalized allocation of seats for the CSOs have remarkable implications to governance. CSOs become involved in public service delivery; in terms of configuration, they complement and supplement government action and even become alternative sources of public services. Their representation in the LDC and in the various bodies and councils is critical, considering that these councils are the planning arms of the LGU. For example, the Local Development Council's primary task is to craft development plans and public investment programs. It is the LDC that creates the Annual Investment Plan which serves as the basis for the utilization of the local development fund (20% of the IRA). These plans and investment programs that the LDC creates become the central basis for the LGU's budget which is crafted by the Local Chief Executive that is subsequently authorized by the local *sanggunian* (Yilmaz & Venugopal, 2010). From this perspective, the representation of the

CSOs in the various councils and special boards and bodies allow the linking of plans with the budget. In effect, the plans become more meaningful not only because they emanate from the people through their representatives, but more importantly, the plans are paired with appropriate means to finance their implementation (Brillantes, 2007; Brillantes & Sonco, 2005).

Thus, it is clear that translating policy into action in the Philippine context at the sub-national level involves stakeholders which ensure a “representative prioritization” of the budget. Their participation in policy formulation and in translating policy to action is critical in upscaling public accountability and effectiveness of the government (Barns, 2003). In addition, CSO participation in the process of governance is an acknowledgement that government is not anymore the sole provider of public services. Factors like corruption, resource deficiency, and past attempts at centralization have caused government to fail. Clearly, government cannot govern alone (Brillantes, 2007).

But while participatory governance leads to transparency, service delivery efficiency, the satisfaction of needs, this kind of governance is not insulated from sectors and scales that affect policy implementation and coordination. The process of allocating government’s limited resources and deciding who gets what and how much is basically a discharge of power. This makes the budget process essentially a political process (Abad, 2019). The Institute for Popular Democracy (as cited in Brillantes, 2007) has noted that until today the budget process in the Philippines, particularly in the sub-national level, remains captured by local political relations like patron-client politics. These enduring power relations that are characteristic of local politics foster an attitude of giving up or ignoring good plans and policies in exchange for politically strategic projects. This creates a disconnect between the plans and the budgetary allocation that support such plans (Brillantes & Sonco, 2005).

James Scott (1972), in his work on patron-client politics in Southeast Asia, described the relationship:

A case of dyadic (two-person) involving a largely instrumental friendship in which an individual of higher socioeconomic status uses his own influence and resources to provide protection, or benefits, or both for a person of lower status who, for his part, reciprocates, by offering general support and assistance including personal services to the patron.

To Scott, patron-client relations is an effective way of uniting people who are not in any way connected by kinship and are an important element in forging “vertical integration.” The reciprocity existing in the dyad is such that each party is able to provide something that is highly valued by the other. A patron is able to secure clients mainly on his/her ability to provide valuable assistance to the latter. Contemporary comparative analysis of clientelism have taken notice of the specific targeting of “spending and regulatory provisions” to clients by patron-politicians in order to generate support and remain in power. The exchange relations between the supporters and the patron is sustained and institutionalized for long periods of time through the provision of particular goods in exchange for support (Grzymala-Busse, 2008). This arrangement defeats whatever success CSOs have built in the budget. Herbert Kitschelt (2000) pointed out how clientelist leaders and politicians, whose interests have captured the purse of local governments, eschew modes of interest aggregation and instead, focus on administrative technical infrastructures to make sure that rewards and favors are well cascaded to supporters. There is even evidence to suggest that highly clientelistic leaders do not want an efficient public administration. Instead, they prefer a public administration that is corrupt, cumbersome, and ineffective as this enhances their legitimacy and utility to the poor, thus increasing their base of support (Stokes, as cited in Manzetti & Wilson, 2007).

Meanwhile, an interesting study found that LGUs were not open to civil society and NGO participation and engagement for fear that they might not be able to dictate or impose upon them. Similarly, NGOs were also reluctant to engage with LGUs for suspicion that they might be co-opted. In the same vein, a study in 2001 on the compliance of LGUs with DILG Memorandum Circular No. 200189 pointed out that civil society representation in the various Local Development Councils set up by the Local Government Code was controversial. This, as 33% of CSO representatives were found to be hand-picked by the local chief executive. What this indicates is that efforts at people empowerment remain emasculated by local power dynamics unique in Philippine politics (Yilmaz & Venugopal, 2010).

How does monitoring and evaluation inform policy-making? What role does this process play in enhancing the relevance, efficiency, and effectiveness of policy reforms?

Consistent with our contextual setting and example, the representation of CSOs in the various bodies and councils provides a mechanism for monitoring. This representation ensures that the plans are supported by finances and that they are executed based on targets and specific schedules. What it does is to enhance the quality and efficiency of the services delivered. Very tangible examples of policy monitoring in the Philippines can be found in the KALAHI-CIDSS program, which comes with parsimonious report cards that track performance through community billboards, forums, grievance and redress mechanism, and CSO monitoring. Another good example of a monitoring mechanism is the Naga City People's Council and the Concerned Citizens of Abra for Good Government (CCAGG). The involvement of CSOs in the governance process particularly in policy monitoring in the public sphere has enhanced governance processes. As noted by Boncodin (2005), such involvement has generated lively public discussion on matters of policy, guaranteed a broad range of public awareness of policy issues, improved project designs, and led to the success of programs and projects. Indeed, the impact of CSO engagement in the process of monitoring public policy is too hard to quantify except that it can be seen and felt by those who benefit from it.

How do networks between public, private, and civil society stakeholders shape processes of policy making and governance? How do co-production processes affect the quality of public goods and services?

In a very compelling work, Peter Evans (1996) argued that networks established between the public and the private sphere, which he labelled as synergy, are effective initiators of development and enhanced public service delivery. The synergy established in patterns of complementarity and embeddedness between the public and private sphere actors, according to Evans, has created norms of cooperation. By complementarity, Evans referred to supportive relations between the private sphere actors and those in the public sphere. Through this relation, public collective goods are supported by inputs delivered efficiently by the private sector. The combination of the two inputs results in an output that is far greater than what the sectors can individually provide. Similarly, by embeddedness, Evans referred to connections across the public-private divide that have become effective channels of development and social capital instead of becoming tools for rent-seeking and clientelistic behavior.



Complementarity is manifested when private organizations with special skills and knowledge contribute to available state resources in order to increase the harvest of farmers. There is also complementarity when marginalized groups are given space by the government through legislation and institutions that guarantee their right to express themselves, organize, and achieve goals that increase their efficiency.

On the other hand, embeddedness is seen when farmers, owing to their local knowledge and networks, are able to solicit voluntary involvement and assistance from fellow farmers, thus making a government project successful (Lam, 1994).

Complementarity and embeddedness are partners, according to Evans. Each complement the other. This complementation manifests in co-production. Bovaird et al., (2015) noted that this process of contributing resources by the end users of the service themselves elevated the quantity and quality of the service being delivered. At the core of the co-production paradigm is the recognition of citizens not anymore as non-participative clients but as active and generative co-producers of public goods and services (Fledderus et al., 2013). In the context of our example, what is co-produced by the engaged citizens that have interfaced with the public sector in various governance process in the LGU is the budget. Their engagement and the contributions they have made either by way of complementarity or embeddedness results in more responsive and efficient policy and public goods delivery.

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NOTES SECTION

## **In Pursuit of Mindanao Tagalogs**

**Setting out the need for the study  
and engineering of Mindanao's  
Tagalog creolized dialects**

**Karlo Antonio G. David**

### **INTRODUCTION**

**T**he word ‘habwa’ stood out in the Tagalog play being discussed during the 2011 Iyas Creative Writing Workshop in La Salle Bacolod. What was this word, asked the panellists and fellows from Manila, they did not know it. When the Cebuano Bisaya speakers explained it to them, the Manilenyos pointed out that this word was not in the Tagalog they spoke in the capital. It was I who wrote the play, and I was surprised to have discovered that a word I had grown up using in Kidapawan– in the Tagalog of my mother, my relatives, and my friends – was in fact not Tagalog.<sup>[1]</sup>

The Tagalog I grew up speaking, I realized then, was unique, blessed with the proximity of the dozens of other languages spoken in my part of Mindanao. Not only did the Manilenyos not know the word ‘habwa,’ they did not have the very concept of ‘habwa.’ Later I would realize the same with other words I grew up thinking were Tagalog - ‘hagpat,’ ‘ading,’ ‘libak,’ ‘pataka,’ ‘lain.’

And this was only the Tagalog in Davao and in Kidapawan, whose linguistic realities were already quite different from one another.

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1 I had since translated the play to English, ‘Killing the Issue,’ and in 2014 it won second place in the Palanca Awards. I write this monography partly to pay tribute to that Tagalog draft I had otherwise since buried in obscurity.

What other variations of Tagalog, I wondered, have emerged and continue to emerge in other parts of linguistically diverse Mindanao? What peculiarities have they come and are coming to exhibit?

The answer to these questions remain unknown because there remains a great scarcity of studies into the Mindanao Settler languages – part of the bigger gaping hole of linguistic research in the still growing body of academic literature on Mindanao. Mindanao Settler languages in general remain *terra incognita*, still almost entirely in the province of the colloquial and informal, a situation which I suspect perpetuates itself as it discourages the academic attention necessary to dignify and better understand emerging dialects.

To help address this scarcity was the main impetus behind the Master's thesis I wrote in Silliman in 2014. The thesis, completed to finish a Masters in Creative Writing, ended up both linguistically describing the Tagalog of Davao and discussing its use as literary medium in creative writing. I asserted the value and dignity of Davao Tagalog, describing the many advantages it offered not only to writers but to the community which uses it as well. The thesis contained literary works written in Davao Tagalog, some of which had been published elsewhere since.<sup>[2]</sup>

But as early as the time I was writing the thesis, I was already aware that I was just dealing with one manifestation of this phenomenon of Tagalog hybridization happening all over Mindanao. Six years of further study and reflection on the matter, specially as I focused my attention on my hometown of Kidapawan, only made it clearer that the Davao Tagalog I had studied in 2014 is only part of a bigger picture: the reality of Mindanao Tagalogs.

As mentioned, this reality remains poorly understood, as other forms of Tagalog continue to emerge and develop in the shadows the academe has yet to explore. What is needed – and what I seek to incite in this monograph – is the conduct of more studies into Mindanao Tagalogs.

Here I will attempt to offer a brief roadmap of such studies, first de-cluttering the terminology of Tagalog studies arising from the pseudo-linguistics of Tagalista establishments, then painting a general picture of the linguistic condition in Mindanao from whence Mindanao Tagalogs emerge. Then I will discuss how an extant model for studying the multiplicity of a hegemonic language – Braj Kachru's concentric circles of World Englishes – may be used on Mindanao Tagalogs, before discussing some complications

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2 The thesis, 'Davao Filipino and its Literary Possibilities,' is available online for free.

in providing a clear linguistic taxonomy of these Tagalogs vis-à-vis emerging interlanguages by non-native speakers. I will then seek to offer a preliminary list of Mindanao Tagalogs, seeking to briefly describe them for future researchers to validate, before concluding with a brief discussion into how these Mindanao Tagalogs need to be and could be ‘engineered’ to strengthen their integrity.

## A NOTE ON ‘FILIPINO’ AND LINGUISTIC DISCRIMINATION

Before a discussion of Mindanao Tagalogs could proceed, there is a need to clarify the muddled waters of Tagalog studies.

I refer, of course, to the national language, which authorities call ‘Filipino’ and which they insist is distinct from Tagalog.

The distinction, so goes the official explanation, lies in Filipino’s nature as a ‘language under construction’ of sorts: Filipino ‘shall be further developed and enriched on the basis of existing Philippine and other languages,’ goes Article XIV Section 6 of the 1987 Constitution. This section is the latest incarnation of other constitutional provisions on the national language, most notably preceding the 1973 Constitution’s Article XV Section 3 item 2, which provided for ‘the development and formal adoption of a common national language *to be known* as Filipino.’<sup>3</sup>

This National language called Filipino is ostensibly meant to be based on Tagalog but ‘enriched’ with influences from other Philippine languages. This ‘enrichment,’ based on succeeding publications and projects organized by the Komisyon sa Wikang Filipino (the main agency tasked with this national language’s development), is mainly in terms of lexis. Other scholars, specially national language advocates from the regions, have called for more influences, with the writer Leoncio Deriada famously advocating for the inclusion of morpho-syntactical and even phonological influence from the other Philippine languages to be incorporated into Tagalog to make Filipino.

The naming of the national language to Filipino and its dissociation – first in name and then in its supposed identity – is rooted in the desire to ‘de-Tagalize’ the national language: to make it, and the resulting Filipino

3 It is worth noting that, understanding this provision’s context, the future tense was evidently used in reference to the change of spelling in the national language’s spelling, not some language under construction mechanism: the Commonwealth era mandated national language was spelled ‘Pilipino,’ and under the 1973 Constitution, it was *to be known* as Filipino. I speculate that advocates of other Philippine languages, including Leoncio Deriada, subverted the clause’s meaning to create the current language under construction mechanism.

identity ostensibly embedded into it, more inclusive of other language ethnolinguistic identities.

But this is an exercise in futility, because while you can ‘Bisayalize’ the national language, and while you can ‘Chavacanize’ or ‘Maguindanize’ or ‘Blaanize’ it, you can never really de-Tagalize it because it is based on Tagalog.

And besides, the national language’s ‘official creolization,’ as it were, has hardly even happened, and the so-called Filipino language is still indistinguishable from Tagalog. Consider the following lines:

*Gayon ka, walang hudyat: Pitik ng kampanilya, bulong ng simoy, kilapsaw ng gagambang gumagapang sa tubigan, sakâ katahimikang ganap at walang-hanggan. Ngunit kamatayan ka lámang.*

Any speaker of Tagalog will be able to say that these lines are Tagalog. Unless one be whimsical and argue that ‘ka’ and ‘pitik’ are borrowed from Cebuano Bisaya, and ‘kamatayan’ is borrowed from Hiligaynon, even the vocabulary is patently Tagalog.

And yet these are lines excerpted from the recent poem ‘Kamatayan ka lamang’ by Virgilio Almario, who claims to be writing in Filipino.

And then we have to consider how the Komisyon sa Wikang Filipino itself defines ‘Filipino.’ In its Resolution 1 of 1992, it defined Filipino as ‘the indigenous language, in spoken and written form, in Metro Manila, the National Capital Region, and in other urban centers in the archipelago.’ The language indigenous to Metro Manila is Tagalog, which also remains the dominant language in it.

This lack of any development on the mandated ‘enrichment’ and the KWF’s own doublespeak has led me to join linguists both in the Philippines and from other countries in insisting that Filipino remains synonymous with Tagalog.

I would even go so far as to assert that Manila Imperialism exists and that it manifests itself linguistically as Tagalog Imperialism, one which insists on purism and punishes the supposed ‘enrichment’ mandated by the constitution.

I made this assertion in my thesis in 2014, but it was not until a year later when I would experience the sheer intolerance of this insidious purism firsthand.

Having been invited to participate in an international literary conference in 2015, I submitted a proposal to give a talk on the use of Davao Tagalog as a literary medium.

To my surprise I heard later that someone in the conference's organizing committee – a Manilenya writer – had tried to block my participation on the grounds of this topic. This writer, I was told, accused me of 'advocating wrong language,' and my subject should therefore not be given legitimacy. Fortunately for me, the theme of the conference was 'dissent,' so the organizers found my topic very appropriate.

Leoncio Deriada extolled Tagalog's hybridized dialect in Davao as 'the seed of the national language' precisely because the influence coming into it from other Philippine languages is inadvertent and natural. But as my unpleasant experience demonstrates, dialects, especially ones which exhibit a great degree of hybridization with other languages, are still routinely and systematically dismissed as 'bastardized,' 'incorrect,' 'wrong' language, 'hindi katanggap-tanggap' inferiors to 'pure' Tagalog.

Any researcher, who would seek to pursue any of the Mindanao Tagalogs as subject matter or any writer who would seek to take it up as a literary medium, will inevitably have this Imperialism and this purism to deal with.

## REJECTING DERIADA'S NATIONAL LANGUAGE

We note, also, that there is a distinction between how 'Filipino' is being shaped by the KWF from Manila and what the more idealistic regional scholars think it is supposed to be. Again we allude to Leoncio Deriada, who insisted that 'Filipino is different from Tagalog.' But from the state of things we also reasonably speculate that he most likely meant 'Filipino *should be* different from Tagalog.'

Deriada, as mentioned, envisioned a more creolized national language, one which would be as different from Tagalog as, perhaps, Chavacano is to Spanish or Tok Pidgin is to English. This creolization Deriada envisioned would happen in multilingual areas like Davao, where Tagalog is constantly

exposed to a linguistically diverse reality. He practiced what he preached and, in his 'literature engineering' in West Visayas – where he organized writers workshops and encouraged young writers to write in their languages – he also encouraged people to 'lace their Tagalog with Visayan words' to make Filipino. One prodigious protégé, John Iremil Teodoro, went one step further and started using Hiligaynon morphology in his Tagalog.

The vision of a creole national language is one shared by many national language advocates, specially those who were disciples of Deriada. I count myself among those disciples, having invited Deriada to sit on my thesis panel in 2014.

But after some years of reflecting on the idea, I dissent, rather belatedly, from the late master on this particular idea.

In their 2018 paper 'Disentangling the Rubrico and Dolalas Hypotheses on the Davao Filipino Language,' Feorillo A. Demeterio III and Jeconiah Louis Dreisbach cited my Master's thesis, discussing it vis-à-vis the studies of Jesse Rubrico and Leslie Dolalas (both of which I had cited in my thesis). Demeterio and Dreisbach pointed out an important detail which I admittedly failed to notice: the models for the national language proposed by Deriada and by Rubrico are markedly different.

Whereas Deriada envisioned a single monolithic national language emerging from different multilingual locales, Rubrico envisioned a multiplicity of 'indigenized Filipinos (Tagalogs),' each emerging from the unique linguistic realities of each locale.

All I needed to do was observe the Tagalog spoken in Davao and compare it with that spoken in Kidapawan to confirm that Rubrico's vision is closer to reality. The Iluko, Hiligaynon, and Monuvu influences that have found themselves in Kidapawan Tagalog do not appear in the mostly Bisaya influenced Tagalog of Davao, just two hours away by car. What more, we wonder, for these influences to reach a national conversation that almost entirely happens in Metro Manila thousands of kilometres away.

What we argue then is that a creolized national language based on Tagalog will never emerge, at least not through the localized hybridizations Deriada envisioned. What will happen instead is the emergence of localized creolized dialects of Tagalog as it is imposed all over the archipelago, each influenced by the locale's linguistic realities, and, setting aside intervention from the Katagalugan motherland, each most likely destined to evolve into



different languages. This was the fate of Vulgar Latin, which came into contact with Germanic, Slavic, and Celtic languages to give rise to the many Romance languages. If Katagalugan intervention occurs (as is the likely case), the Manila dialect of Tagalog will emerge – as it is already emerging – as a Koine language, one which will assume the name ‘Filipino.’

Rubrico’s study, we must note, referred to its subject language as ‘Filipino,’ but for all intents and purposes, Rubrico was studying Tagalog. We will now set aside the term ‘Filipino’ and call the Tagalog language by its proper name<sup>[4]</sup>.

## MINDANAO’S LINGUISTIC REALITIES

A better understanding of the linguistic realities in Mindanao – from whence Mindanao Tagalogs emerge – is needed in order to see how these Tagalogs are to be studied.

Mindanao – which includes the main island of Mindanao, the Sulu archipelago, and other culturally associated islands – is easily the most linguistically diverse part of the Philippines, and is a global hotspot for linguistic diversity. With at least twenty languages spoken by the Lumad (the non-Islamized indigenous peoples), over a dozen spoken by the Moro peoples (the Islamized indigenous peoples), and an innumerable number of Settlers (who came in successive waves of colonial planned or informal resettlement from Luzon and Visayas), almost every language in the Philippines has a speaking community in Mindanao, with many languages endemic to the place.

In 2016, the website *Thinking Machines* made statistical linguistic maps of the Philippines based on 2010 data from the Philippine Statistics Authority. They note from their data that linguistic diversity is generally concentrated in Mindanao’s provinces. The two most linguistically diverse provinces in the Philippines – Sarangani and North Cotabato – are both located in Mindanao’s SOCCSKSARGEN region. Two other provinces in the Region, South Cotabato and Sultan Kudarat, are rivalled in fourth and fifth place by Mountain Province and Benguet respectively, with another

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4 Let this also be my way of correcting myself, as the thesis I had written in 2014 was entitled ‘Davao Filipino and its Literary Possibilities.’

Mindanao province, Zamboanga del Sur, also rivalling Sultan Kudarat and Benguet for fifth place.

The general picture across Mindanao is at least three languages in regular use, including English and Tagalog, with around four other major *linguae francae* – Bisaya, Hiligaynon, Maguindanaon, and Tausug – being used in different regions. Most people in Mindanao are able to speak at least four languages, with a sizeable population being able to speak more.

With diverse histories shaping their populations, the specific linguistic realities of each locale will be markedly different from those of other locales. A language which occupies a *lingua franca* status in one town may be a very obscure language with a marginalized speaking community in another nearby (this is not hypothetical: this is the case of the Maguindanaon language, which is a *lingua franca* in towns like Buluan but which are rarely heard in Kidapawan just around an hour's drive away). As mentioned, the body of studies into Mindanao's linguistic realities remain small, and future researchers would do well to paint a more detailed picture of the realities of each locale.

What is certain – as is certain everywhere – is that with linguistic diversity comes more frequent linguistic confluence. A multilingual population will inevitably see more frequent language contact and hybridization, from lexical diffusion to even morpho-phonemic influences. Lumad, Moro, and Settler languages alike demonstrate very evident influences from another. The nature and degree of such confluence is also the ripe subject of further studies.

What we must highlight, however, is another reality often overlooked: the tendency of Mindanao to be a linguistic Relic area for the Settler languages. The Settler ethnicities came to Mindanao in past historical periods, and have lived in Mindanao with a considerable degree of isolation from their linguistic motherlands since. What this has done is to retain some historically prevalent idiosyncrasies in their languages that have long since fallen out of use, or seen alteration in the motherlands. The word 'kalintura' (from Spanish 'calentura'), for instance, is still more common in the Bisaya of Davao and Kidapawan than the more prevalent 'hilanat' in the Visayas, while the word 'platica' (from the archaic Spanish 'platicar') is still prevalent in now very rarely spoken Cotabato Chavacano. The linguistic relics in Mindanao's many Settler languages are also in need of study.

## THE EMERGENCE OF MINDANAO TAGALOGS

It is on these realities of diversity, confluence, highly localized dynamics, and the prevalence of relic features that Tagalog, given the name 'Filipino' in its guise as the national language, was imposed.

To understand the place of Tagalog in Mindanao, it is useful to look at the national language in the lens of colonial nation-building. Tagalog is a *bajo de la campana* language – the language considered worthy of the dignity of being spoken under the church bells of the colonial, Christianized Philippine nation. Philippine nationhood is a colonially introduced concept into Mindanao, and the use of Tagalog as a national language is part of the way this concept is reinforced, both among the Settlers descended from the immigrants brought in by the state to dilute the indigenous population and the indigenous population that have been en-settled and 'civilized' into Filipinos.

The introduction comes with the prestige necessary to incentivize coloniality – the use of Tagalog is deemed prestigious, advantageous, not only contributing to nation building but also to giving one practical advantages. To reinforce this, Tagalog, along with English (another colonially introduced language) is kept as a dominant language in formal contexts – education, governance, media – and, more informally, is maintained as the language of the upper classes.

This needs to be pointed out in order to identify the two populations which speak Tagalog in Mindanao as a native language. The first of these two is the small<sup>[5]</sup> community of ethnic Tagalog Settlers, whose ancestors immigrated to Mindanao in historical times. The second, and I speculate the bigger population, is composed of those from originally non-Tagalog ethnicities, both Settler and indigenous alike, who have been raised to speak Tagalog as a first language due to its many advantages. In the over a century of Settler presence in Mindanao, the distinction between these two populations has come to disappear.

The Tagalog of those raised to speak the language (both ethnic Tagalog or not) will nevertheless be exposed to the other languages spoken in the locale. For the non-ethnic Tagalog speakers, they will also certainly grow up with linguistic influences from the languages of their actual ethnicities.

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5 The population and demographics of these Tagalogs are also still the subjects of further study

A Maguindanaon raised to speak Tagalog in Kidapawan where Bisaya is *lingua franca* will invariably end up having a Tagalog influenced by both Maguindanaon and Bisaya.

As can be surmised from this picture, the resulting differences of Tagalog can be idiolectal, as the linguistic realities may be unique to certain families. We do however note that a localized dialect may still emerge as populations of Tagalog-speakers, communicating with their Tagalogs shaped in unique ways, will inevitably share idiosyncrasies that become normalized in the locale. This is the case, for instance, of the word ‘*tikal*,’ which has origins in Hiligaynon but which a Tagalog speaker with no Ilonggo background would still end up using in Kidapawan.

The Tagalog of a locale in Mindanao is shaped by the aforesaid realities of diversity, confluence, and relic features unique to that locale, and because these realities differ wildly in the many locales in Mindanao, what emerges is a multiplicity of Tagalogs.

My use of ‘Tagalogs’ - Tagalog in the plural – follows the terminology of a useful linguistic concept from which study the concept of Mindanao Tagalogs could be informed: that of World Englishes.

Like the prestige language Tagalog introduced in different places with different localized linguistic realities, English has come to produce a diversity of localized variants in its spread as a global language.

But if we focus on the idea of one prominent proponent of World Englishes, Braj Kachru’s concentric circles of Englishes, and apply the same theory to Mindanao Tagalogs, we see quite a different picture that all the more shows the need to study Mindanao Tagalogs further.

In Kachru’s model, the world of English speakers could be generally divided into three concentric circles: the Inner Circle where English is the dominant native language, the Outer Circle where English, generally a second language, has political and cultural importance, and the Expanding Circle, where English, a foreign language, has marginal relevance, mostly as international *lingua franca*. Kachru describes the Inner Circle – countries like the UK, the US, and Australia – as ‘norm providing,’ where norms of the English language – orthography, pronunciation, idioms among others – are created. The Outer Circle, on the other hand, is ‘norm developing,’ as countries like the Philippines, India, Malaysia, and Nigeria are developing (and challenging) the norms set by the Inner Circle. The Expanding Circle

– countries like China, Russia, and Japan – are ‘norm dependent,’ with their English following the norms set by the Inner Circle religiously.

If we are being linguistically candid and apply this same framework on the study of Tagalog, we would be putting the linguistic motherland – the Katagalugan area in Luzon, specially Metro Manila – in the Inner Circle of Tagalog’s own concentric circles, with Mindanao and its Tagalogs belonging to the Outer Circle (the Expanding Circle occupied by foreign language learners of Tagalog). But doing so would of course only reinforce the idea of Manila Imperialism – that the national language’s norms are still dictated from Manila – and it is a paradigm many a national language advocate would be quick to reject (or at least regretfully admit and decry).

What complicates matters for Tagalog even further is that whereas no law prohibits the English Inner Circle from being the source of linguistic norms, Philippine Laws provide for Tagalog (in its guise as ‘Filipino,’ the national language) to have its norms be deliberately opened up for development from the non-Tagalogs, making the Katagalugan area’s place in Tagalog’s Inner Circle technically illegal.

And then we problematize the Katagalugan Area’s limits and point out that the Mindanao Tagalogs are in fact spoken by native speakers who are themselves either ethnic Tagalogs in Mindanao or were raised speaking the local Tagalog. We have earlier established that Mindanao’s localized Tagalog-speaking communities actually create their own localized norms for the language they speak on a native basis – they occupy a linguistic position more akin to English speakers in America than to Indians or Nigerians learning English.

Why can the norms created by speakers of Mindanao Tagalogs not be regarded as part of the norms of Tagalog when these same norms are generated by native speakers? If a US citizen of African heritage in Manhattan (a place with a Munsee Lenape name) can be in the Inner Circle of a language that originates from England, why does an ethnic Tagalog in Mindanao have to be in the Outer Circle of his own language?

These are not merely academic questions: they ultimately lead to the question of whether Mindanao Tagalogs are legitimate variations that should be allowed and encouraged or if they should be censored as ‘hindi katanggap-tanggap.’

I go into the realm of opinion and assert the former, affirming the dignity and value of Mindanao Tagalogs and reiterating the need to further strengthen their integrity by enjoining the pursuit of their study and development. We confront the reality that the Katagalugan area in Metro Manila is in the Inner Circle of Tagalog, but we call for the dismantling of this hegemony.

## INTERLANGUAGE VS CREOLIZED DIALECT

There is, we must point out, a need to clarify linguistic taxonomy and the corresponding terminology that comes with it.

One of the more important assertions I made in my master's thesis on Davao Tagalog, and which I think is worth repeating and expanding here, is the distinction between Tagalog spoken by non-fluent speakers and Tagalog spoken on a native level. The former, in the case of Davao Tagalog, I called 'TagBis,' the Tagalog produced by Bisaya speakers, while the term 'Davao Tagalog' I reserve for the latter.

TagBis is an Interlanguage, an unstable and unpredictable form of the target language (Tagalog) which demonstrates features of the first language (Cebuano Bisaya) owing to shortcomings in fluency. As I said in the thesis, owing to its unpredictability – with a speaker even ending up breaking his own norms of Bisaya-influence – TagBis or any other form of interlanguage is not the proper subject of a dialectal description. We reiterate that here, cautioning any future researcher into the Mindanao Tagalogs from conducting a study using non-native speakers as respondents<sup>[6]</sup>.

We do however note that the distinction between Interlanguage and the target Tagalog can often be difficult to notice, and are in many cases in fact nonexistent. This is not a surprise, as many of the features of a Mindanao Tagalog have origins in fossilized interlanguage features – we cite perhaps the most famous example, that of the word 'kagaw,' which the second language Tagalog speaker Rodrigo Duterte ended up using in his failure to recall the Manila Tagalog 'mikrobyo' and which has since gained greater usage in Davao Tagalog.

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6 Almost all extant studies into Davao Tagalog, the most studied Mindanao Tagalog thus far, focus on TagBis, that of Jesse Rubrico included (a choice Demeterio and Dreisbach reinforced). As a result, many of their findings are patently invalid, with the features they describe as norms often evoking a cringe from native speakers.

With respect at least to the results of language contact, what the researcher into any of the Mindanao Tagalogs must pay attention to is how specific influences of the other languages are perceived by native Tagalog speakers in the locale. An aberrant borrowing would stand out and immediately be dismissed as a result of failure in fluency, while borrowed features worth noting often go unnoticed, many even being mistaken as Tagalog, if not celebrated as a desirable innovation.

If what we are dealing with are necessarily not instances of interlanguages, what then are they?

This was a question I raised but had not been able to answer in my thesis. I pointed out that ‘creole’ may be the best term but the term is usually used for products of contact between two unrelated languages, and that the resulting languages in the present case are in fact still largely intelligible to Tagalog speakers, so ‘dialect’ may also be valid.

We repeat these same observations, now putting forward the term ‘creolized dialect’ to describe our subject of study. We do away with the complications of the term ‘Filipino’ and call these creolized dialects ‘Mindanao Tagalogs.’

If we are to return to Braj Kachru’s concentric circles, speakers of the interlanguage would already be in the Expanding Circle of Tagalog, with the more fluent speakers already entering the Outer Circle. The children they raise to speak Tagalog should already be in the Inner Circle if Manila Imperialism did not exist.

In my thesis, I used another sociolinguistic framework with a similar tenor but with a more localized scope, John Rickford’s Creole Continuum. Tagalog in the ‘pure’ form as spoken in Manila, I postulate, occupies the position of acrolect in the locale, Mindanao Tagalogs with their regularized hybridization are mesolects, and interlanguage Tagalogs are basilects (we note the ability of speakers to codeswitch between levels). This prevalent purism, I pointed out, comes despite the constitutional mandate to ‘enrich’ Tagalog with influences from other languages to create ‘Filipino.’

## THE FLUIDITY AND GRADATION OF VARIETIES

Any researcher must also understand that there is one reality he has to deal with in his pursuit of studying any of the Mindanao Tagalogs: that locales,

specially adjacent ones, will have similar and even interconnected linguistic realities, and the distinction between individual varieties may consequently not be easy to establish.

Linguistic locales often do not follow the same borders as local government units. Several adjacent towns may have the same linguistic realities, while a particular barangay or even sitio may already differ significantly from their neighbour. We may speak of a 'Kidapawan Tagalog,' but this Tagalog may in fact also be identical to the Tagalog spoken in the neighbouring towns of Makilala and Magpet. And we may speak of a 'Davao Tagalog,' but one which could in actuality only be limited in usage to the urban center of one of the biggest cities by land area in Southeast Asia.

Of course a major factor in creating similarity in linguistic realities is interconnectedness, with families and social networks often spanning towns. A town's language landscape is inevitably shaped by that of its neighbours, as it in turn shapes the linguistic dynamics of those neighbours. A word or phrase, for instance, may be coined in the language of one town and find itself spreading to the neighbouring towns. This was what happened to the Bisaya catcall 'salad o, init pa' which was coined in Cagayan de Oro but which gained popularity all the way to faraway Davao.

Locales, of course, also need not be adjacent to have similar linguistic realities. The cities of Davao, Cagayan de Oro, and General Santos may be non-contingent, but they are very similar in that they all have Bisaya as their dominant lingua franca, so the Tagalogs spoken in these places will inevitably be influenced mostly by Bisaya.

All of this will lead the researcher into encountering not several creolized dialects distinct from one another, but often a set of many manifestations in different locales that bare many similarities but have subtle differences that emerge in gradation across the map.

In describing the Mindanao Tagalog emerging from a specific locale, the researcher invariably creates the distinction between it and others in that gradation (i.e., a graphic demonstration of the presence of the observer shaping what is being observed). This is because the pursuit is a matter of studying the Mindanao Tagalog in question in its own terms: to describe in all their complexity the realities of the locale from whence this Tagalog emerges, and the dynamics of these realities which shape this Tagalog. The Tagalog of Davao, for instance, may bear similarities to that



in GenSan, but they were shaped by different historicities, occupy different local sociolinguistic positions, and because communication between the two cities is common, they in fact influence one another. We nevertheless trace the origin of influences and identify what comes from where (just as, if the switching of examples be allowed, 'salad o, init pa' remains distinctly Cagayan de Oro Bisaya even as it seeped into Davao Bisaya precisely because its origins were thus traced).

We acknowledge the similarities and the interconnectedness of dialects, but one ought never to be simply dismissed as a version of the other.

## A PRELIMINARY LIST OF MINDANAO TAGALOGS

Having said that what often emerges in the study of Mindanao Tagalogs is a gradation of similar and interconnected creolized dialects that may be hard to distinguish from one another, we nevertheless observe that several Mindanao Tagalogs have emerged to be distinct enough to call attention to themselves.

I list some of them here, but the list is meant to be a preliminary one, demanding further expansion and elaboration as more studies are conducted into the identified Tagalogs.

**Davao Tagalog.** The Mindanao Tagalog with arguably the largest extant body of literature- this was the subject of my Master's thesis, a thesis which builds on both formal studies and more causal journalistic feature articles that date back to the 1990s. Davao Tagalog is, in general, Tagalog influenced by Bisaya. The influence is lexical, phonological, morphological, syntactical, and in some instances idiomatic. Aside from research, literature has also been published in it, and recently it has even been used in public signages, increasingly occupying a larger role in local pop culture. Upon primary observation, it is limited to the urban downtown areas though a proper survey is needed to know its full area of use. A similar form of Tagalog may be spoken in the adjacent city of Panabo, or to the nearby city of Digos, although the Tagalogs in these cities should also be subject to study.

**Kidapawan Tagalog.** I committed the mistake in my master's thesis of dismissing this as a variation of Davao Tagalog. In reality, the Tagalog of my hometown is shaped by realities quite different from Davao, resulting in a noticeably different creolized dialect. Whereas Davao Tagalog's influences

are largely limited to Bisaya, Kidapawan Tagalog also exhibits some influences from Iluko (the word ‘ading’ for instance), Hiligaynon (the words ‘las-ay’ and ‘linti’ just to name some), and to a lesser extent Obo Monuvu (the interjection ‘okkoyoy’) and Maguindanaon (‘tayan’ being sometimes used as term of endearment, and ‘kagikit’ entering the local culinary vocabulary without Tagalog speakers knowing its Maguindanaon roots). Several of the Tagalog families in Kidapawan have roots in Bulacan, and so certain features of the Bulaceño dialect of Tagalog have some degree of currency in the city, specially those shared with Bisaya (‘sutil,’ ‘bahog’). It is spoken both as a native language and as a second language with native fluency by ethnic non-Tagalogs. Literary works have been published in it (to date all my works), but no studies have been conducted in it yet, a dearth I hope to address in the future.

**Kabacan Tagalog.** Kabacan has larger populations of Ilocanos and Maguindanaons than Kidapawan, and as such the influence of those languages on the Tagalog spoken there are more significant than in Kidapawan’s, with influence from Bisaya also pervasive. I am not aware if the speakers are ethnic Tagalogs or were raised to speak it, or if it is widely spoken, and I could not ascertain if any studies have been conducted in it (certainly none are easily accessible). I only know of it from the works of writer Gerald Galindez, who has published works in it.

**Tacurong Tagalog.** With a largely Ilonggo Settler population living with Maguindanaons, Hiligaynon and Maguindanaon are the dominant influences on the Tagalog of Tacurong. Gerald Galindez has also published works in the creolized dialect, but like Kabacan Tagalog I know next to nothing about it as studies, if there are any, remain elusive.

**GenSan Tagalog.** As mentioned, General Santos City shares similar linguistic realities with Davao City, using Bisaya as the dominant lingua franca. As such GenSan Tagalog, at least upon initial observation, is very similar to Davao Tagalog. But Gensan has very important differences in linguistic realities from Davao, not least of which is its proximity both to largely Ilonggo South Cotabato and to linguistically diverse Sarangani, so more subtle differences are the exciting subjects of study (if such studies have been conducted, I am also unaware of them). I am aware of at least one writer, Jade Mark Capiñanes, who has published literary works in it.

**Cotabato Tagalog.** The peculiarity of the Tagalog spoken as mother tongue by a growing population in Cotabato City, at least upon casual observation, is the influence of Maguindanaon phonology and the prevalence of speech that bears closer resemblance to written Tagalog. It is spoken in Cotabato City, but has also been observed being used by speakers from towns in Maguindanao. This is also a subject with no obtainable study.

This preliminary list has serious limitations I am only too delighted to acknowledge, as pointing them out will highlight the need for further writing. All of these listed creolized dialects are limited to the southwest portion of Mindanao, with all but two of them belonging to a subcategory of Mindanao Tagalogs I and several local writers have called ‘Sox Tagalogs,’ as they belong to the SOCCSKSARGEN Region (the diversity is not surprising, as the Region is the most linguistically diverse in the country). This list ignores much of Mindanao, where literature into Mindanao Tagalogs remain inaccessible if existing: almost all of the Davao and Bangsamoro Regions, and all of Caraga, Central Mindanao, and Zamboanga.

## THE NEED FOR DIALECT ENGINEERING

We have thus far addressed most of our points to future researchers of Mindanao Tagalog. There is equal, if not greater need to do so to future writers and prominent users of them.

While we reject Leoncio Deriada’s vision of an emerging creolized national language, we nevertheless point out that he was right in highlighting the important role writers and prominent users of language play in dignifying, legitimizing, and developing that language. This point needs to be elucidated upon.

It is a fundamental principle of modern linguistics that languages are dynamic, evolving along with the realities of their speaking and writing communities. In this dynamism, writers and prominent users of language have a central role, allowing the effects of these evolving realities to be reflected in the language as they use it. Often, the changes they reflect are resulting from their own circumstances, meaning such an individual’s experiences and creativity can have a major impact on the language many are using. We can thus, for the purpose of convenience, refer to such people as ‘Language Engineers.’

Deriada focused his attention on the writer, but here we also include people who fall under the phrase ‘prominent users of language.’ By this phrase I mean such people as bloggers, radio DJs, reporters, vloggers, social media influencers, and other such people who communicate with a large portion of the public.

It would be, I think, the vanity of literary writers to put themselves before such people because it can be argued that these individuals have a far bigger impact on the evolution of languages than literary writers do, specially in the Philippines, where consumption of literature, particularly in the Philippine languages, is negligible. We observe, for instance, how Virgilio Almario’s attempt to change the orthography of the country’s name in Tagalog to ‘Filipinas’ is hardly followed even by his fellow writers, while Vice Ganda’s ‘e di wow’ has gained currency across many languages as an irritated response to unnecessary self-aggrandization. Although I have published many literary works in Davao Tagalog, social media personality Philip Te Hernandez, who promotes the creolized dialect, certainly has a greater influence in its development than me.

Literary writers nevertheless have a role to play as Language Engineers, one which I think most of these prominent users of language could not achieve: the ability to lend dignity and legitimacy to a language.

No matter how many vloggers use a language or dialect, it will continue to be dismissed as ‘colloquial’ and ‘vernacular’ until it is used in formal and socially prestigious contexts. In a country where literature is a largely academic and upper class cultural element, the formal and socially prestigious contexts are the provinces of the literary writer. When a writer takes up a language or dialect as medium (or at least subject matter) in his writing, the act itself lends some degree of legitimacy and dignity to that language or dialect. This, we note, was how Deriada helped save Kinaray-a and Akeanon from the obscurity of low prestige and elevated them, in the words of Isagani Cruz, to international languages<sup>[7]</sup>. Here, at least, we see a redeeming aspect to the elitism of Philippine Literature.

The central role that Language Engineers – writers and prominent users of language – play in the evolution of language then, we can look at in two aspects: the power to dignify and legitimize (a power that writers do

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7 He was referring, during the 2015 Philippine International Literary Festival, to Genevieve Asenjo using Kinaray-a in the Iowa Writers Workshop.

best), and the power to introduce and reinforce innovations (more easily achieved by users of the language with a larger following). Of course we must point out that many of these Language Engineers go about wielding their influence without being aware of it, their language engineering invariably inadvertent<sup>[8]</sup>.

We elucidate on this point as we remark on the need for Mindanao Tagalogs to be thus empowered by the use of Language Engineers. The first aspect of language engineering, however, takes on another dimension with regard to Mindanao Tagalogs, many of which have yet to even be recognized as distinct dialects.

With regard to the Mindanao Tagalogs, therefore, we also point out that those involved in language engineering have the power to *define* a dialect, drawing the line between it and other forms of the same language.

Who then has the power to make this definition? I say both forms of Language Engineer, but also the researcher because the very act of a researcher to choose to study a dialect itself creates this dialect as a distinct linguistic entity worth studying.

I speculate that this was the case with the Tinananen dialect of Monuvu. The distinction between this and the dialect of Monuvu spoken in Kidapawan and its immediate environs was not remarked upon when the language was first recorded by E. Arsenio Manuel, who described no dialectal differences. It was not, at least to my knowledge, until Elena Van der Molen, most likely on the advice of Melchor Bayawan, noted the differences ('weeg' is the word for water in Tinanan, while it is 'oweg' in Kidapawan) that the two dialects of Tinananen and Obo became recognized in scholarly sources.

This, we also point out, is also the case with my recognition herein of Kidapawan Tagalog as a distinct dialect. Hitherto, and even in my previous writings, it had been merely dismissed as 'Davao Tagalog in Kidapawan,' but by pointing out that it emerged through its own historicity and exhibited several peculiarities not observed in Davao Tagalog, I have hopefully started the process of strengthening its integrity.

What we have, then, is a model for Dialect Engineering, as it were: researchers and writers defining and dignifying, with scholarly and creative attention, the different Mindanao Tagalogs on the basis of their

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8 The word 'inadvertent' was what I used in my thesis to distinguish the nature of Davao Tagalog from the Tagalog *Deriada* was promoting, one which was 'deliberate' in its hybridization.

distinct historicities and characteristics (or perhaps, as was the case with Davao Tagalog, prominent users of the language calling attention to it and popularizing its existence); Language Engineers (prominent users of language and writers alike) developing this defined and dignified creolized dialect by introducing innovations (borrowings from the other languages in the locale, use of a relic feature, coinage of words and phrases, etc.) and promoting these innovations for greater use; then writers and researchers again, observing and legitimizing these innovations with scholarly and creative attention as they gain currency.

The importance of awareness – resulting from the dignity of scholarly and literary recognition as well as the legitimacy of the study of current innovations – cannot be overstated in the aim to engineer the integrity of a Mindanao Tagalog: the community must always be aware that they are not simply using Tagalog; they are using their own Tagalog, a Tagalog shaped in their own terms on the basis of their own realities, experiences, and imaginations.

And here we see why Dialect Engineering is necessary – Mindanao Tagalogs are focal elements of local identity.

In my Master's thesis, I pointed out the political potential of hybrid languages. I discussed briefly the history of creoles as tools against colonialism and imperialism, and element of local pride among former slaves. The conclusion I drew there I repeat here: dignifying emerging creolized versions of an Imperially imposed language is a powerful way of defying that Imperialism.

This point I particularly make to language advocates who dismiss Mindanao Tagalogs as tools for Tagalog Imperialism – Tagalog has been imposed on us, we must steal its agency from those who have imposed it. We must make this imposed language our own.

I also focused in my thesis on the emergence of Singapore's English-based creole, Singlish, and how it has evolved in function from once stigmatized target of government correction to distinct element of Singaporean identity.

Like Singlish, the Mindanao Tagalogs are potent tools to cultivate the identities of the Mindanao locales from whence they emerge, where each Mindanao Tagalog, as mentioned, is shaped on the basis of its locale's own realities, experiences, and imaginations, elements that cannot help but be unique to the locale.

The borrowings from different languages are a reflection of the linguistic diversity of the locale, the relic features it exhibits harks back to the history of its Tagalog community, and the coinages unique to it showcase the verbal ingenuity of its speakers. A community that celebrates its Mindanao Tagalog is one which celebrates all these: its own realities, experiences, and imaginations – a community, in other words, which celebrates itself.

And a Mindanao which dignifies and develops its many Tagalogs, wherever they emerge, is one which celebrates itself as a land of linguistic diversity and confluence, motherland of a myriad mingling tongues.

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