



## AWARENESS, ENFORCEMENT AND VIOLATION OF ENVIRONMENTAL CRIMES AMONG THE COLLEGE STUDENTS OF CEBUCITY

<sup>1</sup>EDWARD MAGLUCOT

<sup>1</sup>Dean for Academic Affairs and Criminal Justice

<sup>1</sup>College of Criminal Justice

<sup>1</sup>Carcar City College, Carcar City, Cebu, Philippines

**Abstract:** One of the most important aspects of environmental protection is the effective and efficient implementation of environmental crimes. Environmental crimes continue to be on rise and are now one of the profitable forms of organized crime. However, its implementation remains a low priority in most countries, evidenced by blatant violation and low arrest and conviction rates. The study aims to ascertain the level of awareness, the efficiency of enforcement and proportion of violation in the penal provisions of selected environmental laws among the college students of Cebu City. This is a descriptive study that utilized convenient sampling. This may serve as the base line data in crafting a model module in teaching environmental crimes, establishing environmental education action plan and strengthening the inter-agency task force as mandated by RA 9512 otherwise known as “National Environmental Awareness and Education Act of 2008”. The study revealed that students have “slight awareness” and high proportion of violation of environmental crimes. The study further disclosed that the primary reasons of violating environmental law are the leniency of the government agencies and lack of awareness of the students.

**Index Terms** – environmental crimes, level of awareness, efficiency of enforcement, proportion of violation

### I. INTRODUCTION

Pope Francis in his Encyclical Letter (Laudato Si’ of the Holy Father) dated May 24, 2015 challenge everyone to protect our common home. The Bishop of Rome observed that various solutions to the environmental crisis have proved ineffective brought about by powerful opposition and the lack of interest of the public. The Pope also laments that educators have fallen short of their responsibility to educate as there is little awareness of the seriousness of our environmental problem. (Tabora, 2015).

In the decision of Philippine Supreme Court, it reiterated that different government agencies and instrumentalities cannot shirk from their mandates in protecting the environment. The Judicial Body emphasized that the era of delays, procrastination, and *ad hoc* measures is over and urged the government agencies to transcend their limitations to work before the environmental problem at hand becomes unmanageable. (MMDA vs. Concerned Residents of Manila Bay, December 18, 2008)

One way of protecting our environment is through effective and efficient implementation of environmental laws. According to Achim Steiner (2012), the Executive Director of United Nations Environment Program (UNEP), environmental sustainability can only be achieved through fair, clear and implementable environmental laws. This will provide clarity to the community regarding requirements, facilitating compliance and deter violation. While national laws may be perfectly formulated, there remain challenges regarding its education and enforcement. (Fulton and Benjamin, 2012)

Environmental laws (UNEP, 2014) is by its very nature a cross-cutting discipline, involving statutes and organs of state related to criminal law, agriculture, disaster management, energy, forestry, health, impact assessment, international relations, natural resources, poverty alleviation, security, trade, water, wildlife, and many more. One of the neglected topic of environmental law is its criminal aspect also known as “environmental crimes”. The United Nations Office on Drugs and Crimes (UNODC) lamented that environmental crimes remains a low priority. According to UNEP, environmental crime is currently one of the most profitable form of criminal activity caused by its low risk of detection and low conviction rates.

Environmental crimes can be broadly defined as illegal acts which directly harm the environment (UNDOC, 2008). Environmental crimes continues to be on rise and is now one of the profitable forms of organized crime. Wildlife crime alone is estimated to be worth 15 to 20 Billion US Dollars annually and is recognized as the fourth largest global illegal trade behind illegal drugs, human trafficking and trade armaments. Moreover, illegal logging is worth between 30 to 100 billion US Dollar globally. It further hampers efforts to combat climate change and poverty. According to UN Food and Agriculture Organization 52 percent of the world's marine fish stocks are fully exploited, 16 percent are overexploited and 7 percent are depleted. (UNEP and Interpol, 2013)

During the 1<sup>st</sup> International Environmental Compliance and Enforcement Conference spearheaded by the Interpol and UNEP held at Nairobi, Kenya, participating countries recognized that environmental crimes are increasingly committed which resulted to economic loss, threaten food security and livelihoods and rule of law in developing countries. In the Philippines, an average of 1,415 persons were killed annually due to natural disaster and a total of PHP 307.5 billion of economic loss from 2003 to 2013 based on 2014 Compendium of Philippine Environment Statistics conducted by the National Statistics and Coordinating Board (NSCB).

The Philippine environmental law is replete and has one of the most voluminous set of environmental laws in Asia. However, the level of implementation suffers the sickbed of non-compliance. Despite the enactment of these numerous laws, it has not prevented the reduction in forest cover from about sixty percent (60%) fifty years ago, to the now critical state of ten percent (10%). It also fails to prevent the destruction of coral reefs to the now terminal state of only five percent (5%) in good condition. Illegal fishing and slash-and-burn farming methods continue to be practiced. (Oposa, 1996)

Environmental law is relatively a new law but it is gradually attaining recognition in the global community due to pervasive impact on the environment. Philippine Environmental Laws seek to address a great number of environmental problems ranging from forest degradation, loss of biodiversity, water pollution, air pollution and solid waste pollution. (Cosico, 2012).

Among the environmental laws in the Philippines that is considered in this study are:

1. **RA 9003 “Ecological Solid Waste Management Act of 2000”** which prohibits the throwing or dumping waste in public places such as streets or canals;
2. **RA 9275 “Philippine Clean Water Act of 2004”** which prohibits the throwing or dumping waste in the water and marine areas;
3. **RA 9147 “Wildlife Protection Act”** which prohibits the killing, taking, trading, collecting, hunting or possessing wildlife and endangered species;
4. **RA 8485 “Animal Welfare Act”** which prohibits the cruelty, maltreatment, killing and deprivation of the basic needs of domesticated animals such as dogs and cats.
5. **PD 705 “Forestry Reform Code of the Philippines”** which prohibits the illegal logging or cutting trees without securing the necessary permit from the DENR
6. **RA 3571 Prohibition Against the cutting, destroying or injuring of plated or growing trees, flowering plants and shrub along public roads, plazas, parks or any other public ground**
7. **RA 9175 “Chainsaw Act”** which prohibits the selling, possessing and using of Chainsaw without permit;
8. **RA 9211 “Tobacco Regulation Act”** which prohibits the smoking in public areas such as school and public conveyances;
9. **RA 8749 “Philippine Clean Air Act of 1999”** which prohibits the smoke belching vehicles;
10. **RA 8550 “The Philippine Fisheries Code of 1998”** which prohibits the Unlawful/Illegal Fishing such as the use of explosives, noxious or poisonous substance, electricity or of fine Mesh net

According to the study conducted by Jenna Jambeck, et. al, in 2013, Philippines is third in worst offender of sloppy waste management and littering of plastic in the ocean across the globe which pose significant dangers to marine life. On the other hand, based on the record of the Department of Environment and Natural Resources (DENR) a total of 562 cases of illegal logging was filed in court and 75 people were arrested for wildlife trade in 2014 and 2015. While in Cebu City, a total of 34,105 were arrested and cited for littering and smoking in public places according to the City Environment Sanitation and Enforcement Team (CESET) in 2015.

Mary Ann Lucille Sering (2015), the Vice Chairperson of the Philippine Climate Change Commission, also noted that the challenge is not only in the implementation but also in the awareness. This is despite the pronouncement of the Supreme Court that the need to a balanced healthful and ecology is a human right that need not be written in the constitution (Manila Bulletin, July 15, 2015). Atty. Antonio Oposa (2010) also bewailed that the ignorance of the general population is symptomatic indication of the failure of the education and communication component of the legislative and legal system.

In order to promote national awareness on the environmental conservation and ecological balance, Congress enacted Republic Act 9512 otherwise known as “National Environmental Awareness and Education Act of 2008”. This law mandated the integration of environmental education in school curricula at all levels. Environmental education encompasses environmental concepts and principles, environmental laws, the state of international and local environmental among others. The statute is reinforced by CHED Memorandum Order No. 33, s. 2009 which requires the integration of environmental education and awareness in the tertiary education curriculum particularly in the Civic Welfare Training Service (CWTS) component of National Service Training Program (NSTP) as provided by Section 4 of RA 9512.

The study aims to ascertain the levels of awareness, the efficiency of enforcement and proportion of violation of the penal provisions of select environmental laws among the college students of Cebu City. The study also look into the reasons of violation of environmental laws and the integration of environmental topics in the curriculum among the higher education institutions of Cebu City as mandated by RA 9512.

This study serves as baseline data in crafting a model module in teaching environmental crimes (Section 3), establishing environmental education action plan (Section 7) and strengthening the inter-agency task force (Section 6) as directed by RA 9512.

Environmental Law is essential for the protection of natural resources and ecosystem. This should be clear, even-handed, implementable and enforceable. This provides clarity to the public regarding the requirements and reporting protocols (Fulton and Benjamin, 2012). During the 1<sup>st</sup> Asia and Pacific International Colloquium on Environmental Rule of Law held in Malaysia (December 12, 2013), participating countries including the Philippines recognized the necessity of the following:

1. To highlight the importance of environmental rule of law and the right to a healthy environment;
2. Enhance the technical expertise through capacity building to ensure compliance with and enforcement of environmental obligations;
3. Environmental law is the foundation for the environmental sustainability and the full realization of its objective is ever more urgent.

In the Philippines, Former Chief Justice Reynato Puno (2001) emphasized on the need to have commanding knowledge of the emerging substantive body of environmental law. He also added that Non-Government Organizations (NGOs) and academes should play a pro-active role in promoting an environmental protection. While Justice Oswaldo D. Agcaoili (2001) complements that without environmental law, future generations may be left with nothing but decimated earth. Further he said that the right to a balanced and healthful ecology carries with it the correlative duty to refrain from impairing the environment.

While during the World Congress on Advancing Justice, Governance and Law for Environmental Sustainability held last June 17-20, 2012 at Rio de Janeiro, Brazil the following were highlighted:

1. Environmental crimes should be recognized in all jurisdictions as serious and priority crimes;
2. The need for enforcement of environmental law and prompt execution of judicial judgments;
3. Environmental education must be improved at all levels including in schools of general education, law schools and the training for professionals.

Environmental education is the process by which people develop awareness, knowledge and concern of the environment. Its goal is to aid young citizens in developing the sense of responsibility and commitment to the future (Lee and Anes, 2010). In Uzbekistan, environmental education of the youth is one of the state education policy. The country has a system of continuous environmental education and training, with environmental education being included in all curricula in all levels. While in Indonesia, they encourage the establishment of "Green School" where awareness and issues on environment are promoted. (United Nations Environmental Programme (UNEP) and China-ASEAN Environmental Cooperation (CAEC), 2014)

In the study conducted by Corazon Pardo (2012) in the University of Northern Philippines, it recommended to improve the environmental awareness, practices and attitudes of the students by developing an environmental education program and strict implementation of the laws. In the parallel research study conducted by Lynnette A. Ejem and Alwielland Q. Bello (2013) in Bukidnon State University the following are salient findings:

1. Students have high awareness levels that smoking, burning of garbage and careless cutting of trees can caused destruction to person and the environment;
2. That students usually take good care of their pets and other domesticated animals and do not pick/cut flowers in the campus.

The researcher believes that while there are already many study regarding environmental protection, this is the first study focusing on the awareness, enforcement and violations of environmental crimes. This study could be paradigm shift in the Philippine Environmental Education through integration environmental law in the school curriculum and the formulation of educational action plan as mandated by RA 9512.

## II. RESEARCH METHODOLOGY

This study is a descriptive type that utilized convenient sampling method. The respondents include one thousand (1,000) college students of various colleges and universities in Cebu City. Data gathering was conducted in canteens, convenient stores and malls near the schools where students usually congregates.

The instrument used in the data collection is a questionnaire composed mainly of close-ended questions. Each question asks respondents to choose from a list of given answer that would correspond to their view. The first part of the instrument is the informed consent where the students were assured of confidentiality of their answers and it cannot be used against them in any form. The questionnaire were administer by the researcher with the aid of five (5) students trained as research assistants. The questionnaire was pilot tested in Rizwood Colleges Mactan Campus.

Frequencies, percentage and weighted mean were used to analyze the data gathered in the study.

### III. RESULTS AND DISCUSSION

#### Profile of the Respondents

The respondents are the college students coming from 28 colleges and universities in Cebu City. Majority of the respondents were between ages 16 to 21 and taking up education (22.6%), criminology (20.4%) and hospitality management (18.1%) courses. This is very significant in the study since they are the future educators, law enforcers and tourism personnel who could be a catalyst in promoting environmental education.

#### Level of Awareness

Table 1. The mean ratings on the level of awareness of college students on select environmental laws.

Environmental Law	Mean	Interpretation
RA 9003 which prohibits the throwing or dumping waste in public places such as streets, canals or esteros	2.69	Aware
RA 9211 which prohibits the smoking in public areas such as in school and in public vehicles	2.57	Aware
RA 8550 which prohibits the Unlawful/Illegal Fishing such as the use of explosives, noxious or poisonous substance, electricity or of fine Mesh net	2.35	Slightly Aware
RA 9275 which prohibits the throwing or dumping waste in the water and marine areas such as river and seas	2.28	Slightly Aware
RA 8749 which prohibits the smoke belching vehicles	2.26	Slightly Aware
PD 705 which prohibits the illegal logging or cutting trees without securing the necessary permit from the DENR	2.23	Slightly Aware
RA 9147 which prohibits the killing, taking, trading, collecting, hunting or possessing wildlife species	2.20	Slightly Aware
RA 8485 which prohibits the cruelty, maltreatment, killing and deprivation of the basic needs of domesticated animals such as dogs and cats	1.85	Slightly Aware
RA 3571 which prohibits the cutting, destroying or injuring of planted or growing trees, flowering plants and shrub along public roads, plazas and, parks	1.73	Not Aware
RA 9175 which prohibits the selling and possessing of Chainsaw if without permit	1.70	Not Aware
<b>Mean of means</b>	<b>2.19</b>	<b>Slightly Aware</b>

#### Norm:

Statistical Range	Interpretation	Description
3.26 - 4.0	Very Much Aware	very familiar with every detail of the law which includes prohibitions and punishment
2.51 - 3.25	Aware	aware of the existing law but not on the details
1.76 - 2.50	Slightly Aware	aware of the prohibitions but not aware of the law which punishes the act
1.0 - 1.75	Not Aware	not aware of the existing law and its prohibitions

The data shows students have a good awareness level on RA 9003 and RA 9211. They are aware that littering and smoking in public places is punishable by law but not aware on the punishment and extent of prohibitions.

On the other hand, the students exhibit very low awareness level on laws that prohibits illegal fishing, dumping of waste in marine resources, smoke belching, illegal logging, wildlife trading and animal cruelty. This means that college students are not aware on the specific environmental law that punishes the said acts.

It is depressing to note that the college students of Cebu City are not aware of RA 3571 and RA 9175 which proscribed the cutting and destroying of planted plants in public places and regulates the use of chainsaw. This is depicted by a very low weighted mean of 1.73 and 1.70, respectively which is interpreted as “not aware”. Students do not know the existence of the laws.

The over-all awareness level of college student is 2.19 which mean that they are aware of the prohibition but not on existing laws that punish the act. This low awareness level of college students on various environmental laws is contrary with the finding in the research conducted in the University of Northern Philippines (Pardo, 2012) and Bukidnon State University (Ejem and Bello, 2013). In this two studies, both students in this two universities exhibited very high level of environmental awareness in terms of stewardship, finiteness of surroundings, diversity and stability, material cycle, balance nature and interdependence.

In the study conducted in 2013 at Bukidnon State University, the college students were “very much aware” on the following items: “smoking can cause disease”, “burning of garbage can contribute greenhouse effect” and “careless cutting of tees and the kaingin system have resulted into wide destruction of our forest”. This implies that students are more conscious on other aspects of environmental protection but not on environmental law.

## Efficiency of Enforcement

Table 2. The mean ratings on the efficiency of enforcement on select environmental law as perceived by college students.

Environmental Law	Mean	Interpretation
RA 9211 which prohibits the smoking in public areas such as in school and in public vehicles	2.29	Slightly Efficient
RA 9003 which prohibits the throwing or dumping waste in public places such as streets, canals or esteros	2.27	Slightly Efficient
PD 705 which prohibits the illegal logging or cutting trees without securing the necessary permit from the DENR	2.25	Slightly Efficient
RA 9275 which prohibits the throwing or dumping waste in the water and marine areas such as river and seas	2.23	Slightly Efficient
RA 8550 which prohibits the Unlawful/Illegal Fishing such as the use of explosives, noxious or poisonous substance, electricity or of fine Mesh net	2.21	Slightly Efficient
RA 9147 which prohibits the killing, taking, trading, collecting, hunting or possessing wildlife species	2.19	Slightly Efficient
RA 8749 which prohibits the smoke belching vehicles	2.18	Slightly Efficient
RA 3571 which prohibits the cutting, destroying or injuring of planted or growing trees, flowering plants and shrub along public roads, plazas and parks	2.04	Slightly Efficient
RA 9175 which prohibits the selling and possessing of Chainsaw if without permit	1.75	Not Efficient
RA 8485 which prohibits the cruelty, maltreatment, killing and deprivation of the basic needs of domesticated animals such as dogs and cats	1.70	Not Efficient
<b>Mean of Means</b>	<b>2.11</b>	<b>Slightly efficient</b>

### Norm:

Statistical Range	Interpretation	Description
3.26 - 4.0	Very Efficient	The law is well disseminated and strictly implemented
2.51 - 3.25	Efficient	The law is well disseminated but not strictly implemented
1.76 - 2.50	Slightly Efficient	The law is partly disseminated and occasionally implemented
1.0 - 1.75	Not Efficient	The law is not disseminated and not implemented

Generally, the students perceived that the efficiency of enforcement of the environmental law suffers a sickbed of non-enforcement with an over-all mean of 2.11. The students give a rating of “slightly efficient” or the law is partly disseminated and occasionally implemented.

It is interesting to note that RA 9003 and RA 9211 got the highest weighted mean of 2.29 and 2.27, respectively. These are the same laws that respondents exhibited a high degree of awareness. This can be attributed with the continued effort of the Cebu City government of consistently enforcing these laws. It is worthy to note also that these laws were reinforced by City Ordinance No. 1361 for littering and City Ordinance No. 2241 for smoking in public places.

Moreover, Executive Order 10-126 was signed by former Cebu City Mayor Michael Rama on October 2010 creating the Cebu City Environmental Sanitation Enforcement Team (CESET). This is the primary agency of Cebu City Government tasked to strictly and consistently enforce RA 9211 and RA 9003. The Executive Order also provides the appointment of five (5) Barangay Environmental Officer in each barangay who will directly report to the Team Leader of Cebu City Environmental Sanitation Enforcement Team (CESET).

The laws that regulate the use of chainsaw and the prohibition on animal cruelty got a lowest mean of 1.75 and 1.70 or “not efficient”. This means that the law is not disseminated and not implemented. These are also the same laws where students have very low awareness levels. This denotes that the efficiency of enforcement by the agencies on environmental laws affects the level of awareness of the students.

## Proportion of Violation

Table 3. The proportion of college students who admitted the commission environmental crimes.

Environmental Crimes	Frequency	Percentage
1. Throwing or dumping waste in public places such as in streets, canals and esteros	736	73.6%
2. Burning home waste such as plastics, papers and rubbers	624	62.4%
3. Cutting, destroying, or injuring of planted or growing trees, flowering plants of scenic value along public roads, in plazas, parks, school premises or in any other public ground	604	60.4%
4. Throwing or dumping waste in the water and marine areas	596	59.6%
5. Smoking in public areas such as in school and public vehicle	573	57.3%
6. Neglecting the basic needs of domestic animals such as adequate care, sustenance or shelter	561	56.1%
7. Torturing physically or inflicting cruelty to domestic animal	530	53%
8. Capturing or killing of wildlife species	515	51.5%
9. Destruction of marine life such taking starfish and destroying coral reefs	502	50.2%
10. Illegal logging or cutting trees without securing the necessary permit from the DENR	494	49.4%
11. Kaingin system or cutting trees and burning them for charcoal	486	48.6%
12. Trading, selling, collecting, hunting or possessing wildlife species	484	48.4%
13. Using smoke belching vehicles	453	45.3%
14. Using of explosives, noxious or poisonous substance, electricity or of fine mesh net in fishing	394	39.4%
15. Selling and possessing of chainsaw without permit	346	34.6%

Almost three-fourth (3/4) of the total number of respondents have committed littering in public places. A great number of students also committed open burning, destroying plants in public places, littering in water bodies and smoking in public places. This is comparable with record with the City Environment Sanitation and Enforcement Team (CESET) which revealed that a total of 34,105 of person in 2015 were apprehended and cited for littering and smoking in public places. Moreover, in a US survey, 75% admitted that they committed littering in the past 5 years, 50% of which also admitted that they littered cigarette butts. (Statistic Brain Research Institute, 2015)

Majority of the respondents also deliberately committed violence and cruelty against domesticated animals, capturing and killing of wildlife species and destruction of marine life. While still a good number of students have perpetrated illegal logging, kaingin and smoke belching.

It is sad to note that while students exhibited a high awareness level and perceived a good enforcement efficiency on RA 9003, it is also the frequently violated environmental law. This just shows that students are not deterred by the existence of the law and continued implementation of the law. Moreover, Atty. Fernando (2012) lamented that RA 9003 has been honored in its breach.

## Extent of Violation

Table 4. The extent of commission of environmental crimes among the college students.

Environmental Crimes	Mean	Interpretation
1. Throwing or dumping waste in public places such as in streets, canals and esteros	2.1	Sometimes
2. Burning home waste such as plastics, papers and rubbers	1.91	Sometimes
3. Throwing or dumping waste in the water and marine areas	1.87	Sometimes
4. Cutting, destroying, or injuring of planted or growing trees, flowering plants of scenic value along public roads, in plazas, parks, school premises or in any other public ground	1.84	Sometimes
5. Smoking in public areas such as in school and public vehicle	1.83	Sometimes
6. Neglecting the basic needs of domestic animals such as adequate care, sustenance or shelter	1.76	Sometimes
7. Using of explosives, noxious or poisonous substance, electricity or of fine mesh net in fishing	1.75	Sometimes
8. Using smoke belching vehicles	1.74	Sometimes
9. Capturing or killing of wildlife species	1.69	Sometimes
10. Illegal logging or cutting trees without securing the necessary permit from the DENR	1.66	Once
11. Destruction of marine life such taking starfish and destroying coral reefs	1.65	Once
12. Torturing physically or inflicting cruelty to domestic animal	1.63	Once
13. Trading, selling, collecting, hunting or possessing wildlife species	1.62	Once
14. Kaingin system or cutting trees and burning them for charcoal	1.61	Once
15. Selling and possessing of chainsaw without permit	1.60	Once

### Norm:

Statistical Range	Interpretation
2.34 - 3.0	Always
1.67 - 2.33	Sometimes
1.0 - 1.66	Once

The environmental crimes that the students frequently committed are littering in public places, burning of waste, dumping of waste in the marine resources, injuring plants in public places, smoking and cruelty against domesticated animals. This is contrary with the result in the research conducted in Bukidnon State University. In this study majority of the college students answered “often” when asked if they take good care of their domesticated animals and answered “always” when asked if they don’t pick/cut flowers in the campus.

### Reasons of Violations

Table 5. The perceived reasons of violating environmental laws among the college students.

Reasons of Violation	Frequency	Percentage
<b>Leniency</b> (failure of the government to strictly and consistently enforce the law)	568	56.8%
<b>Unpopular Law</b> (students are unaware of the existing law)	501	50.1%
<b>Lack for Personnel</b> (No sufficient law enforcer who will enforce the law)	479	47.9%
<b>Lack of Media Campaign</b> (environmental law is not well-disseminated in all of media outlet)	399	39.9%
<b>Unimportant Law</b> (environmental laws will not directly affect the student)	384	38.4%

More than half of the respondent admitted that the primary reasons why they violated environmental laws are leniency on the part of the government and presence of unpopular environmental laws. While still a great number perceived that lack of environmental officer and the lack of media campaign as reasons for violating environmental laws.

This is supported by the result by this study which revealed that students perceived a low efficiency rating in the enforcement of environmental laws. As observed by Justice Oswaldo D. Agcaoili (2001), the Philippines have ample laws defining and punishing environmental offenses but its prosecution of environmental offenders has been stymied by the reluctance and leniency by the very agency tasked to enforce the law. While one third of the college students considered environmental law as “unimportant” because it does not directly affects them. This implies that college students are not aware on the ill-effect of violating environmental crimes. As pointed out by Atty. Antonio Oposa (2002) the provisions of law is ineffective if the target market is not aware and the reason behind the law is not explained.

## DISCUSSION

### *Level of Awareness*

The college students exhibited low awareness level in almost all environmental laws. This is alarming considering that students' awareness in environmental crime is a vital aspect in sustainable development. Information is the lifeblood of effective environmental enforcement. An informed, enlightened and engaged public can offer significant support in the apprehension, prosecution and conviction of offenders (UNEP and CAEC, 2014). This is sustained by Howie Severino, 1998, who believes that through paralegal training and community organization the people could be involve in the effective enforcement and monitoring of environmental laws. This is upheld by Fr. Joel Tabora (2015) who suggested "Cultivating an Environmental Education Program" in all Catholic Schools in the country. It can be deduced that if the college students are properly oriented and informed on various environmental laws through education and training, they can be used in the effective and efficient implementation of the laws.

### *Efficiency of Enforcement*

The students perceived low efficiency on the enforcement of environmental laws. This means that laws relating to the protection of environmental are not well-disseminated nor consistently implemented. As observed by the Philippine Center for Investigative Journalism, the Philippines is not lacking in laws enacted for the protection of the environment it only needed enforcement. The problem on enforcement is caused by inadequate budget, corruption, technical incapacity and the reluctance to prosecute (Howie Severino, 1998). Atty. Antonio La Vina, 2012, also lamented that the Philippines has comprehensive and highly advanced laws to protect the environment and conserve natural resources but these laws are poorly enforced because of financial and technical capacity limitations. Improved enforcement cooperation and political will is required to curb the growing threats posed by environmental crimes (UNODC, 2008). As suggested by the UNODC and provided by Section 6 of RA 9512, it is imperative to create an inter-agency task force that will focus in the effective implementation and wide dissemination of environmental laws to the barangay level. The task force may include non-government organizations (NGOs) and the academe.

### *Proportion of Violation*

Majority of the students admitted the commission of environmental crimes. The most frequent of which are littering, burning of home waste, dumping of waste in marine resources, destroying of plants and smoking in public places. The rampant violation of environmental laws is attributed to leniency on the part of the government and lack of awareness. It can be inferred that college students are not well oriented on rationale of environmental laws. As pointed by Atty. Antonio Oposa (1996), the provisions of environmental laws are ineffective if the public are not convinced on the need and importance of the law. The objective or the reason behind the law should be taught to the students in order to encourage voluntary compliance.

RA 9512 required the integration of environmental education in school curricula at all levels. It encompasses topics on environmental concepts and principles, environmental laws, state of international and local environment, local environmental best practices, threats of environmental degradation and the responsibility of the citizen to the environment. This is strengthened by CHED Memorandum Order No. 33, s. 2009 which requires the integration of environmental education and awareness in the tertiary education. However, the topic on environmental laws is less likely integrated in higher education institutions (HEIs) in Cebu City. The researcher strongly suggests the production of module in environmental law and to revisit the CHED Memorandum Order in order to have an effective compliance monitoring scheme.

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