

# Stop the Plastikan natin, Baguio! Environmental Communication Plan Towards Zero Single- Use Plastic Bag in Baguio City

Clarissa- Mae G. Ebba

Graduate School, University of the Philippines- Los Baños, Laguna, Philippines

DOI: <https://doi.org/10.52403/ijrr.20260441>

## ABSTRACT

This paper presents a strategy aimed at reducing and ultimately help eliminate the use of single-use plastic bags (SUPBs) within Baguio City, Philippines, particularly focusing on public markets. The campaign responds to observed persistent challenges in enforcing City Ordinance 35 s. 2017 ('The Plastic and Styrofoam-Free Baguio Ordinance').

The communication strategy employs a Social and Behavior Change Communication (SBCC) framework. The primary target audiences are Public Market-Goers and Public Market-Vendors, with secondary focus on the Local Government Unit (LGU) and the Department of Environmental and Natural Resources (DENR). The General Objective is to improve knowledge and increase participation among market-goers and vendors regarding the zero single-use plastic bag goal in Baguio City within a six-month period.

Key strategies involve Environmental Education (via video presentations and publication materials emphasizing global/local plastic pollution, photodegradation time, and effects on soil, water, and the food chain); Advertisement and Public Relations (through news articles in local media outlets and public postings of the city ordinance); and Promotion of alternatives (such as eco-bags, soluble plastic bags, and bayong). A

practical component includes a workshop for market-goers and vendors on making reusable bags, which could also serve as an income source.

Assessment, Monitoring, and Evaluation will be conducted through a comprehensive online survey after six months, assessing factors such as frequency of SUPB usage, awareness of environmental impact, and attitudes toward reusable alternatives. Weekly checking will also be conducted to monitor implementation and ensure the plan stays on track. The campaign utilizes existing macro-policies (RA 9003) and micro-policies (City Ordinance 35 s. 2017) as enabling mechanisms

**Keywords:** Single Use Plastic, Environment, Plastic Bags, Baguio City

## INTRODUCTION

Single-use plastic products (SUPPs) are currently among the most convenient and widely utilized materials; however, their production and disposal pose significant threats to the environment and public health globally. These items, often referred to as disposable plastics, include common packaging like grocery bags, food wrappers, and cutlery, all intended for a single use before being discarded or recycled (UNEP 2018).

The excessive consumption of Single-Use Plastic Bags (SUPBs) is a recognized global concern, contributing substantially to plastic

pollution. Research from various countries, including South Africa, highlights the urgent need for comprehensive reduction strategies (Neef, Shihepo, Roos, & Richter, 2023). In developing nations, waste management is compounded by limited recycling infrastructure, such as the challenges faced in Indonesia with multilayer metalized plastic packaging (Muposhi, Mpinganjira, & Wait, 2021). Furthermore, improper disposal leads to severe environmental consequences: when incinerated, plastic bags release toxic chemicals contributing to air pollution (Neef, Shihepo, Roos, & Richter, 2023); they also commonly clog water drainage systems, intensifying flooding and water pollution issues (Gu, Zhu, & Ali, 2023). The resulting accumulation of plastic litter creates breeding grounds for disease-carrying vectors and contaminates essential food and water sources (Kosore, Waiyaki, and Kimanga, 2023).

In the Philippines, the consumption of single-use plastic bags presents a substantial challenge, exacerbated by solid waste management issues across different municipalities (Manalo and Manalo, 2022). With less than 10% of plastics being recycled, most are abandoned, incinerated, or sent to landfills, and single-use plastics account for approximately half of this plastic waste (Hale and Song, 2020). Despite existing policies, the environmental impact persists, particularly as many plastic bags are not designed for recyclability (Dayrit, 2022). The Philippines is currently identified as the third-ranking contributor to plastic pollution globally (Schachter, J., and R. Karasik., 2022).

Within Baguio City, the persistence of SUPBs, particularly in public markets, directly undermines the objectives of City Ordinance 35 s. 2017, 'The Plastic and Styrofoam-Free Baguio Ordinance'. Observations indicate a systemic problem where vendors routinely supply plastic bags, and consumers often neglect to bring reusable alternatives. This challenge is compounded by the lack of strict

reinforcement of the ordinance and the absence of shared communication interventions to raise awareness among both vendors and consumers regarding sustainable, economically viable options. Locally, the improper disposal of plastics contributes significantly to recurring flood events by impeding drainage channels, creating a menace to the city's ecosystem and residents.

This research, anchored by the communication campaign "Stop the Plastikan natin, Baguio!", aims to bridge the gap between existing legislation and necessary behavioral change through a targeted strategic intervention. The campaign utilizes a Social and Behavior Change Communication (SBCC) framework.

The **General Objective** of this communication campaign is to ensure that, at the end of six months, the public market-goers and vendors in Baguio City improve their knowledge of the zero single-use plastic bag policy and increase their participation level in related LGU and DENR policies, programs, and activities.

The **Specific Objectives** of this communication plan are:

1. To enhance and increase the awareness of market vendors and goers about the plastic bag-free environment in Baguio City.
2. To raise awareness of the detrimental effects of single-use plastic bags on the environment among the multi-stakeholders of Baguio City.
3. To mobilize people to be part of the action toward addressing the issues of soil and water pollution

## LITERATURE REVIEW

The global issue of plastic consumption is largely driven by the perceived low cost and easy availability of plastic bags (Hosain, et al., 2021). However, the environmental costs are staggering, including the release of 3.5 kg of CO<sub>2</sub> per kg during plastic production (Herrera and Pertuz 2017). The widespread reliance on SUPBs is evident

across diverse geographies. In Jimma City, Ethiopia, a survey revealed that 76.52% of respondents frequently used plastic bags, irrespective of their demographic background (Adane, & Muleta, 2011). Similarly, in Islamabad and Rawalpindi, Pakistan, 53% of surveyed individuals were extensive users of plastic bags, though many identified cloth bags as a viable alternative (Ahsan, Nasir, and Abbas, 2020). In more developed economies, the consumption is also significant; Americans use an estimated 100 billion plastic bags annually, typically discarding them after a single, brief use (Warner, 2010). To counter these habits, behavioral and policy interventions, such as financial incentives and social norms, are essential for promoting sustainable practices (Yalvac, Saleh, Gün, & Arslan, 2023). Globally, regulatory measures are increasing, with 35 countries having implemented taxes or bans on single-use bags (Patricia and Alejandro, 2022), including total bans in nations like Pakistan and Bangladesh due to hazardous impacts on ecosystems and marine life (Islam, et al., 2022).

In the context of the Philippines, the challenge is underscored by the high volume of plastic waste being generated, with less than 10% recycled, indicating a major failure in waste management systems (Hale and Song, 2020). The problem is particularly acute because SUPBs are not typically designed for easy recyclability (Dayrit, 2022). Addressing this requires a multi-faceted approach, integrating national mandates like Republic Act 9003, the Ecological Solid Waste Management Act of 2002, which emphasizes waste avoidance and volume reduction through source reduction and minimization measures. At the local level, this is operationalized through ordinances like Baguio City's City Ordinance 35 s. 2017, which prohibits business establishments from providing plastic bags or polystyrene foam containers. However, as observed in Baguio City, legislation alone is insufficient without dedicated communication and enforcement

to counteract persistent consumer and vendor habits.

## **MATERIALS & METHODS**

This study details the development and implementation plan for the "Stop the Plastikan natin, Baguio!" Environmental Communication Plan, designed to address the issue of single-use plastic bag (SUPB) utilization in Baguio City Public Markets. The methodology follows a Social and Behavior Change Communication (SBCC) process.

### **1. Planning Framework and Strategic Design**

The strategic design was developed based on insights gathered from observations of the public market, paper trail reviews, and informal interviews, which highlighted the persistent circulation of SUPBs and the lack of strict ordinance reinforcement.

**Target Audience Segmentation:** The plan focuses primarily on Public Market-Goers and Public Market-Vendors, aiming to enhance their awareness of the plastic bag-free environment and increase their involvement in eliminating SUPBs. Secondary stakeholders include the Local Government Unit (LGU) and DENR, targeted for strengthening policy implementation.

**Enabling Mechanisms:** The plan leverages existing legal frameworks: the Macro Policy, Republic Act 9003 (Ecological Solid Waste Management Act of 2002), and the Micro Policy, City Ordinance 35 s. 2017 ('The Plastic and Styrofoam-Free Baguio Ordinance').

### **2. Action Plan and Strategy Development**

The six-month communication campaign utilizes varied content strategies designed to address specific objectives. The campaign's core messages are structured around three themes: Local and Global Problem (Philippines as a top contributor, extended photodegradation), Current Situation in the City (City Ordinance 35 s. 2017, plastic bag

circulation), and Alternatives (Eco-bags, Communication Strategies by Content: soluble plastics, bayong).

Key Messages	Communication Strategy	Media Strategy	Context within the campaign/project objectives
1. Philippines as a top contributor to plastic pollution	Environmental Education	1. Video Presentation. The language will be in Filipino with English Subtitles. The video will be distributed across both the EMB Official Facebook page and the City's Official Facebook page. 2. Publication material will also be made as a compliment for the video presentation. The language will be in English.	1 and 2
2. Single-use plastic bags will take hundreds of years to photodegrade.	Environmental Education	1. Video Presentation. The language will be in Filipino with English subtitles. The video will be distributed across both the EMB Official Facebook page and the City's Official Facebook page. 2. Publication material will also be made as a compliment for the video presentation. The language will be in English.	1 and 2
3. Effect of Single-use plastic bags on the soil, water, and water ways.	Environmental Education	1. Video Presentation. The language will be in Filipino with English Subtitles. The video will be distributed across both the EMB Official Facebook page and the City's Official Facebook page. 2. Publication material will also be made as a compliment for the video presentation. The language will be in English.	1 and 2
4. Single-use plastic bags affect the food chain	Environmental Education	1. Video Presentation. The language will be in Filipino with English Subtitles. The video will be distributed across both the EMB Official Facebook page and the City's Official Facebook page. 2. Publication material will also be made as a compliment for the video presentation. The language will be in English.	1, 2, and 3
5. Reminder on the implementation of the City Ordinance about the utilization of single-use plastic bags	Advertisement and Public relation	1. News article to be published in the different local media outlets such as: Sunstar Baguio (newspaper); Bombo Radyo (radio); PTV Cordillera (TV) Publication Material to be posted in the vicinity of the City Public Market	1, 2, and 3
6. Alternative container for the single-use plastic bags	Internet, Promotion	1. Publication material to be distributed across both the EMB Official Facebook page and the City's Official Facebook page. The language will be written in English. Some photos will be added for highlights 2. 30 seconds Developmental RadioPlug	1, 2, and 3
7. Making of reusable bags for wet products	Public Relation and Sales power	Workshop and Network building for selling of finished products	3

### Implementation Timeline (6 Months)

Key activities scheduled include:

- **Months 1-3:** Creation and uploading of four separate educational videos and accompanying publication materials

(addressing pollution contribution, photodegradation time, environmental effects, and impact on the food chain).

- **Months 3-4:** Writing and publishing news articles in newspapers, radio, and TV outlets regarding the City Ordinance.
- **Month 4:** Posting publication material detailing the City Ordinance and alternatives in the Market Vicinity.
- **Month 5:** Creation of a developmental radio plug on alternatives and establishing partnerships with TESDA.
- **Month 6:** The two-week Workshop Proper for making reusable bags (open to market-goers and vendors).
- **Continuous (Months 1-6):** Monitoring and Evaluation.

#### **Assessment, Monitoring, and Evaluation**

- **Assessment:** After six months, the monitoring team will conduct a comprehensive online survey to assess the utilization of single-use plastic bags among market goers and vendors.
- **Sample Survey Questions:** Questions cover frequency of use, awareness of environmental impact, conscious efforts to reduce consumption, accessibility of alternatives, factors influencing choice, and support for policies/initiatives.
- **Monitoring and Evaluation Plan:** Involves weekly checking of the plan's implementation, reviewing activities and the timetable, establishing a checklist system, assigning responsibilities, holding regular meetings, and adjusting the timetable as needed

The environmental communication plan "STOP THE PLASTIKAN NATIN BAGUIO" addresses the persistent challenge of single-use plastic bag (SUPB) consumption in Baguio City, Philippines, specifically targeting public market-goers and vendors. The campaign is built upon the observation that despite the existence of City Ordinance 35 s. 2017 ('The Plastic and Styrofoam-Free Baguio Ordinance'), there is a lack of strict reinforcement and public awareness, leading to a continuous cycle of

plastic use and environmental issues such as flooding caused by clogged water channels. The overarching goal is to contribute towards zero single-use plastic bag usage in Baguio City. This is supported by a six-month Social and Behavior Change Communication (SBCC) campaign with key specific objectives:

1. To enhance and increase awareness among market vendors and goers about the plastic bag-free environment in Baguio City.
2. To raise awareness of the effect of SUPBs on the environment among multi-stakeholders.
3. To mobilize people to participate in action addressing soil and water pollution.

The strategy emphasizes environmental education, advertisement, public relations, and sales power, utilizing multi-platform media like video presentations, publication materials, news articles across newspapers, radio, and TV, and a developmental radio plug. A core component is the promotion of alternatives such as soluble plastic bags, eco-bags, and *bayong*, alongside a planned partnership with TESDA for a workshop on making reusable bags, which doubles as a potential income source.

The success of the campaign hinges on a rigorous Assessment, Monitoring, and Evaluation (AME) plan. The AME includes a comprehensive online survey conducted after six months to gauge changes in SUPB usage frequency, awareness levels of plastic pollution, and attitudes toward reusable alternatives among market-goers and vendors. Weekly monitoring meetings and a checklist system will ensure adherence to the timeline and allow for necessary adjustments, thereby ensuring the plan remains on track to achieve its goals of enhancing policy implementation and fostering sustained behavioral change towards a plastic-free Baguio.

#### **Declaration by Authors**

**Acknowledgement:** None

**Source of Funding:** None

**Conflict of Interest:** No conflicts of interest declared.

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How to cite this article: Clarissa- Mae G. Ebba. Stop the Plastikan natin, Baguio! environmental communication plan towards zero single- use plastic bag in Baguio City. *International Journal of Research and Review*. 2026; 13(4): 411-417. DOI: [10.52403/ijrr.20260441](https://doi.org/10.52403/ijrr.20260441)

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