



Municipality/ Province/ Region	Baliuag, Bulacan, Region 3
SSF Project Title	SSF on Community Plastic Station-Eco Cast Processing
Cooperator	Baliwag Green Producers Cooperative
Project Cost	PhP950,000.00
Machinery and Equipment Provided	1 unit Hydraulic Eco Cast Machine / Hydraulic Press 1 unit Aggregates Mixer 1 unit Grass Crete Machine
Date Established	3 March 2023

SSF SUCCESS STORY

Transforming Waste into Innovation:

The Journey of Baliwag Green Producers Cooperative's Community Plastic Station Concrete Blocks

The goal of sustainable development is to create a better and more secure future for everyone without compromising the environment for future generations. It encompasses four pillars, namely, environmental, economic, social, and governance, which collectively underpin our day-to-day activities. One of the major environmental concerns affecting the province of Bulacan is flooding due to heavy rains and improper waste management which cause blocked drainage systems.

The SSF Project on Community Plastic Station, which was conceptualized and established in partnership with the LGU of Baliwag and the Office of Senator Joel Villanueva, aims to collect and convert plastic wastes into shredded plastics which will be used as raw materials for the production of construction materials such as eco-casts, eco bricks and pavers. It is intended to be a community-based plastic waste resource sorting, shredding and eventually a processing facility that will complement Baliwag

LGU's Materials Recovery Facility (MRF) for materials that can be recycled or upcycled into new products. It is a socially-inclusive model that can be aligned with and integrated into the LGU's social responsibility and sustainability programs.

The cooperative also has an existing partnership with Green Antz Builders, a company that is committed to reducing the environmental impact of plastics in the Philippines and beyond to combat the pervasive issue of plastic waste pollution. They seek not just to clean up the present but to secure a cleaner, safer environment for future generations. They also envision a world where sustainability is intertwined with daily life and where each action creates a ripple effect of positive environmental change.

The community plastic station and eco-cast processing aims to lessen plastic wastes by turning them into shreds which will be incorporated into the cement and gravel mixture. These will then be molded into eco-cast, concrete pavers and concrete hollow blocks. According to Green Antz Builders, each eco-brick contains around 100 sachets or 50 grams of post-consumer laminates. The use of eco-bricks in construction offers the following advantages over using hollow blocks: a much higher compressive strength (550 vs. 158 PSI), 30 percent savings in overall wall construction costs, less labor man-hours, less concrete mix and a shorter curing time, no breakage during storage on site, and less water used. These environmental impacts will have a direct effect to waste and pollution reduction, lessening the microplastic contamination, preserve the natural ecosystem and conserve natural resources.

This is an initiative that makes use the circular economy to help attain the Sustainable Development Goals. Through this project, the cooperative will significantly help the Municipality of Baliwag in handling plastic trash effectively while bringing in extra money for related businesses like junk shops and trash collectors. Additionally, it will help in managing the accumulation of plastic garbage in drainage systems, which is one of the major causes of flooding in the area.

The Baliwag Green Producers Cooperative is a cooperative whose initial members are the employees of the City Environment and Natural Resources Office. The cooperative consists of 15 CENRO employees and 50 individuals who are mostly garbage collectors and sorters from the city's materials recovery facility. The project will provide extra income for its workers from the proceeds of sold eco-casts. The income of the cooperative from sold items will also be used for cooperative investments and a portion of it will also be available for lending to its members to address and bridge their financial needs. The socio-economic impact of this project will have a great effect on empowerment and social inclusion, access to services and resources, jobs and income generation, community development and poverty alleviation to BGCP's members.





