

**REGULATED SINGLE-USE
PLASTIC BAG AND BAN ON
PLASTIC STRAW: THE LOS
BANOS EXPERIENCE**

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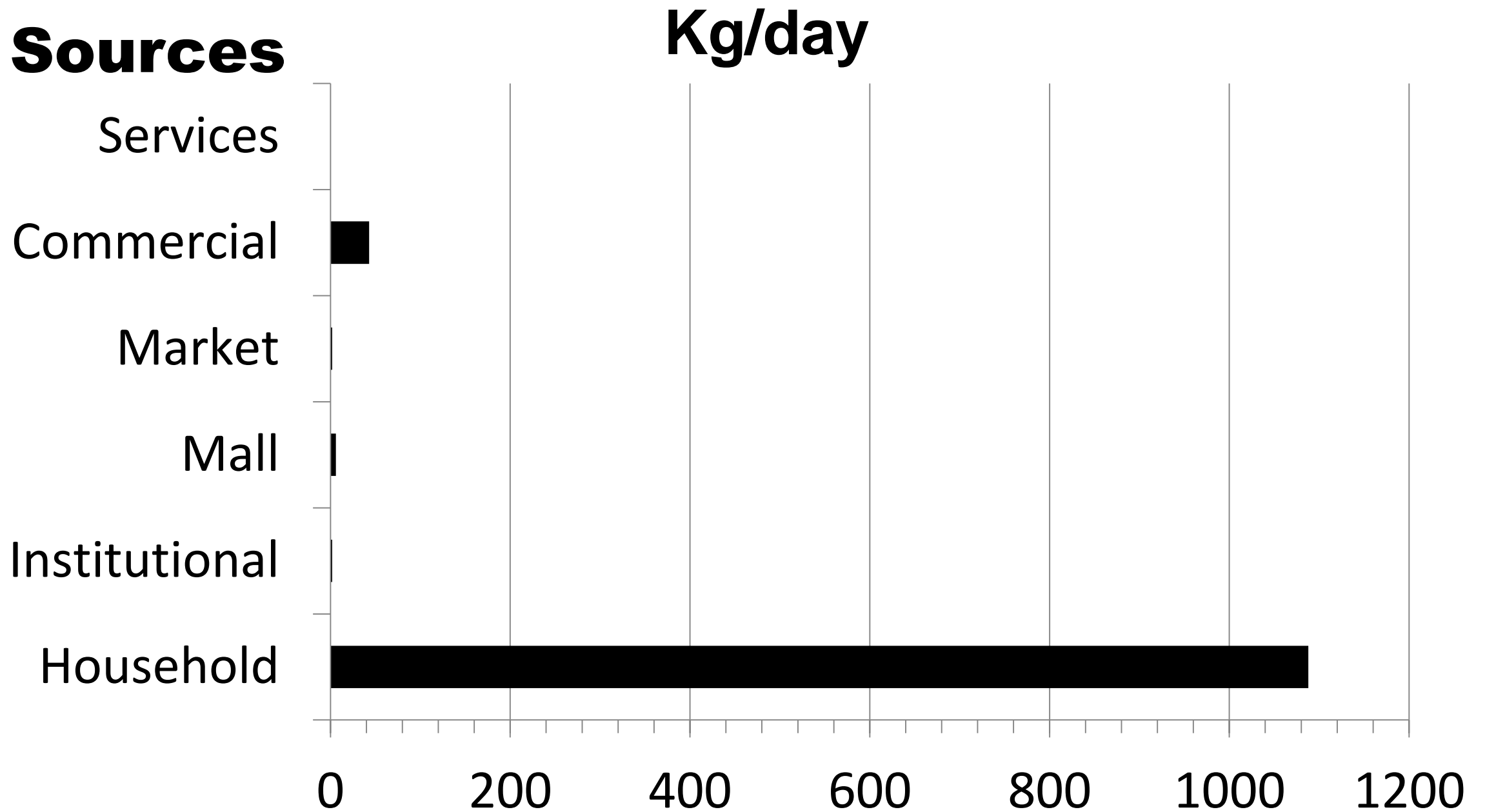
**Designated Municipal Environment
and Natural Resource Officer**

Presentation Outline

- **Plastic waste generation**
- **Bring your own bag program to replace plastic bags in 2006**
- **2008 Plastic Ordinance and Recycling of single use plastic waste**
- **2014 Expanded Plastic Ordinance**
- **Lessons learned**

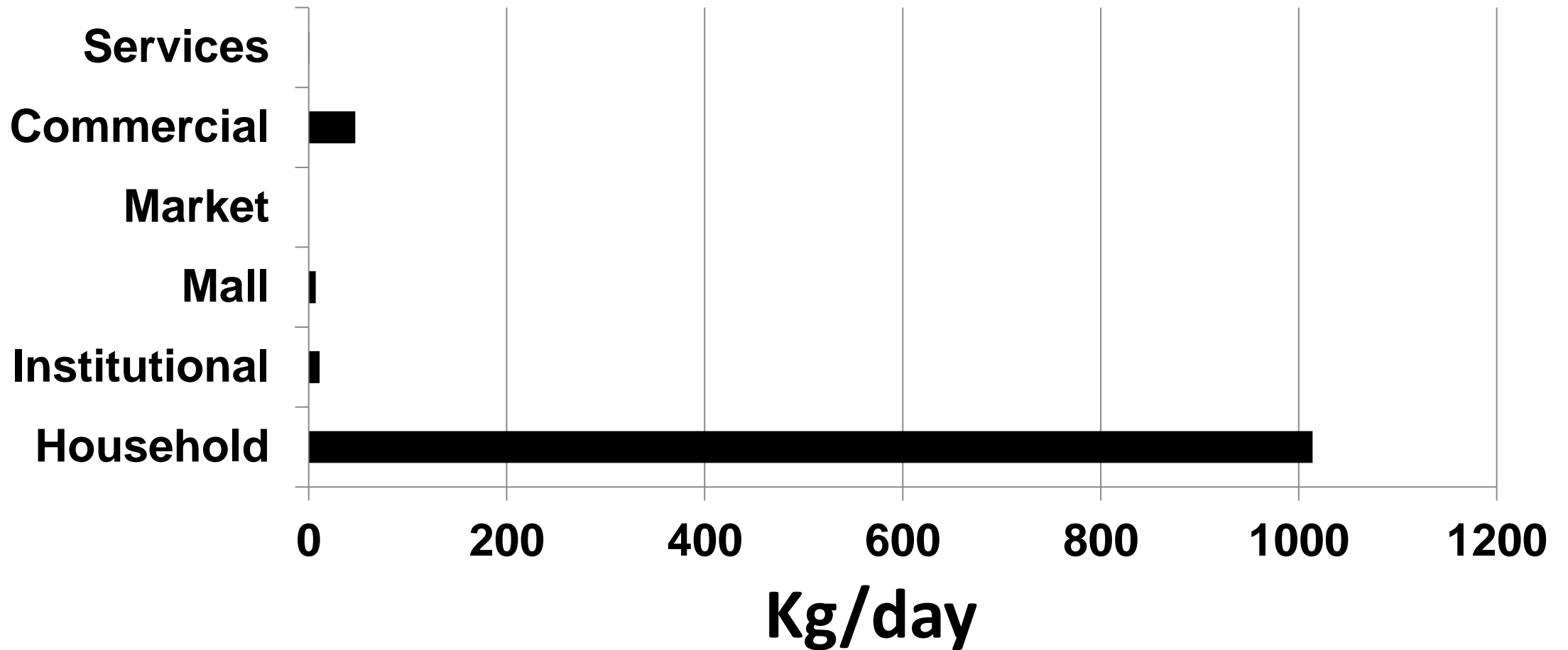
**Table. Waste characterization of garbage in the Los Banos open
dumpsite, 2001**

Item	Weight (Kg)	Percent
Cans	2488	10
Glass/bottles	1244	5
Cloth	1244	5
Fruits, vegetables fillings and left over food	4976	20
Food Packages, plastics/Styrofoam	9952	40
Paper, cartons, cardboard	2488	10
Leaves, wood and plant trimmings	1244	5
Others (metals, diapers, others)	1244	5
TOTAL	24880	100



Estimated daily Sando bag waste generation from different sources in Los Banos in 2014

Sources



Estimated daily generation of thin plastic film waste from various sources in Los Banos, 2014

Promoting “Bayong” or woven native bags



“Balik Bayong” Launching on March 18, 2006



Promoting “Bayong” or woven native bags



“Balik Bayong” Launching on March 18, 2006



Bring Your Own Bag (B.Y.O.B.)



Using "bayong" in public markets



Campaign on the use of biodegradable packaging materials and containers



Municipal Ordinance No. 2008-752

- Prohibition on selling and providing customers with plastic bags as packaging materials for dry goods and as secondary packaging materials for wet goods
- Segregate, clean and dry plastic waste and bring to the barangay hall for disposal
- Prohibition on disposal of plastic waste

Penalties for violators of the ordinance

- First Offense - P 500 fine
- Second Offense - P 1,000 fine
- Third Offense - P 2,500 fine and/or imprisonment of not more than six months upon the discretion of the court and in the case of business establishments, cancellation of business permit for one year

At the households

- Used singles use plastic bags were cleaned, dried and garbage collector pick up dried plastic bags and brought to the MRF for recycling**

Buy Back Plastic Bags



Conversion into usable products



Washing and Drying of Plastic bags



Weighing of Dried Plastic Bags prior to Melting

SHREDDING



Collection



Feeding of Plastic Bags
into the Shredder

Bagging for proper storage

MELTING OF PLASTIC WASTE IN THE DRUM USING FIREWOOD



3



4



Thoroughly mixing the melted plastic waste to make it strong & pliable

Daycare Chairs & Tables Fabrication



Forming the mix materials in fabricated moulds

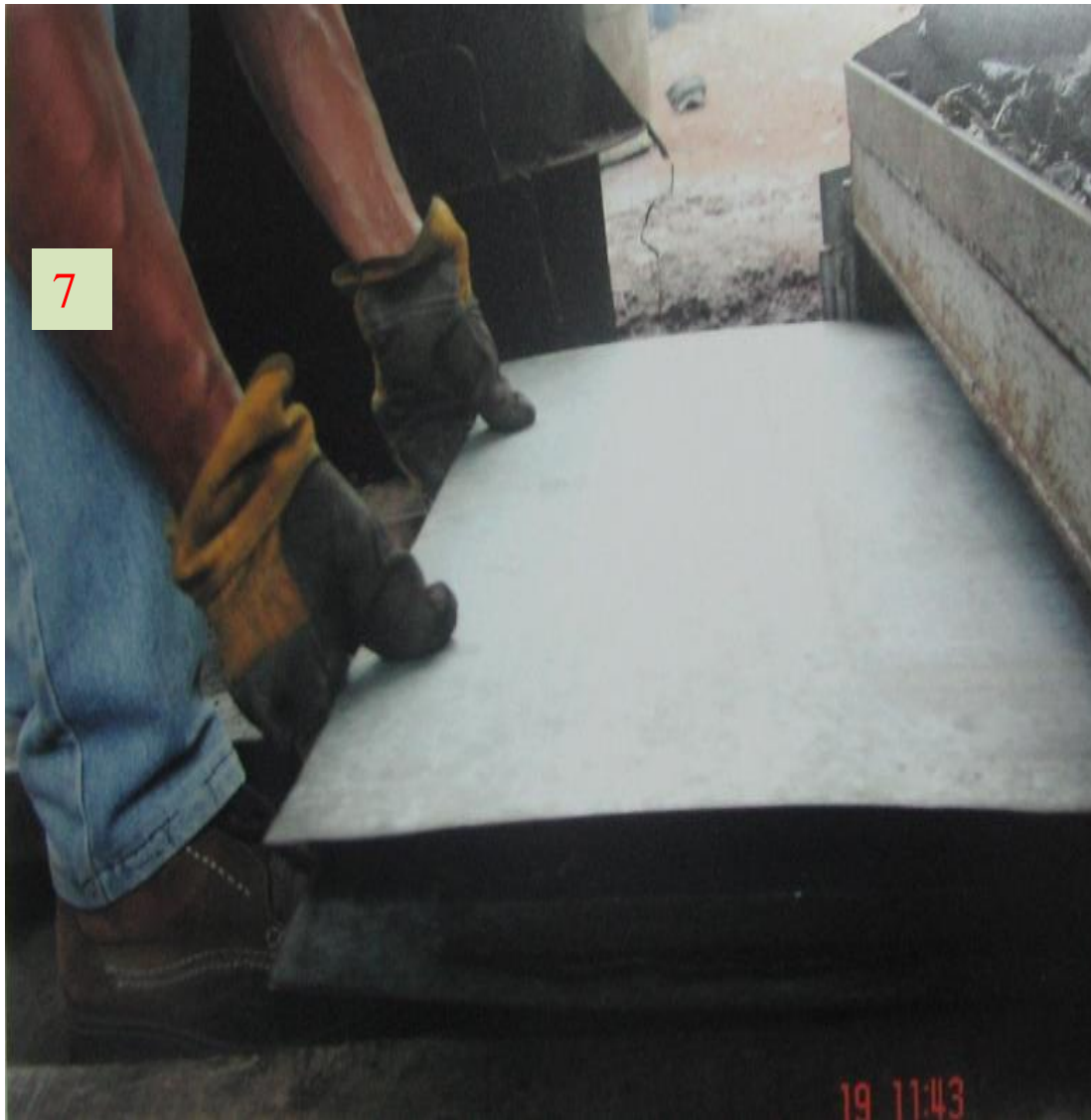


Cold-pressing the formed material to certain thickness using the screw-type fabricated press

Fabricated Machines from Scrap



PLASTIC PRESSERS



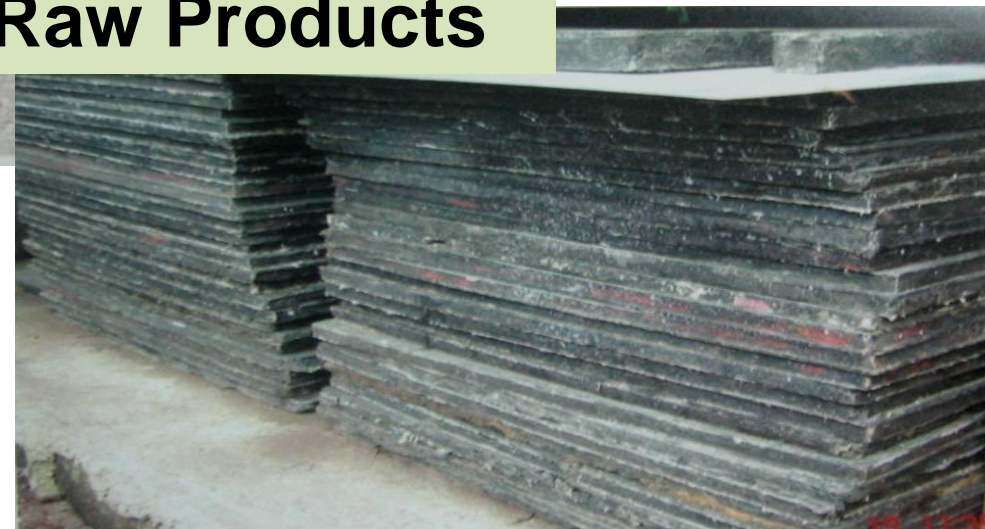
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De-molding the cold-pressed component for conditioning and finishing



8

Raw Products



Continuing Research and Development on Wastes Conversion/ Utilization



Corrugated Roofing Material



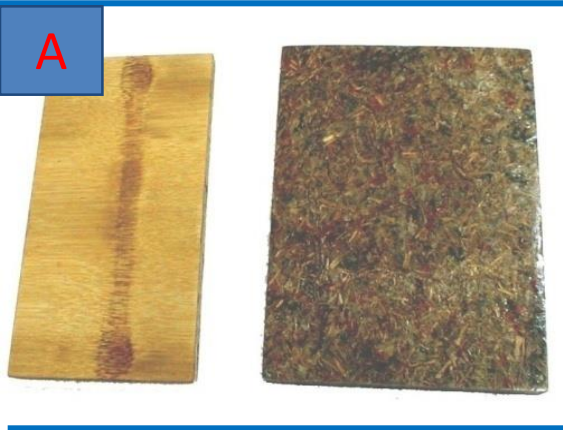
Corrugated Roofing Material from Plastic Wastes



Experiment on Plastic-Degrading Bacteria



Products from Plastic Wastes



A – Decorative slabs

B – Center Tables

C – Hollow Blocks

D – Garden Pavers/
Pathways

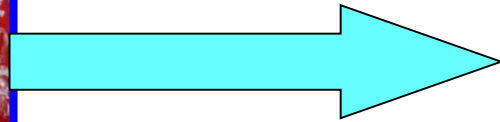
E – Corrugated Roofing
Sheet

INVESTORS NEEDED!

Tables



Plastic Waste as Fillers for Pillows



Plastic Waste



At the end of his term in 2010, the next Mayor discontinued the program and the equipment was not properly maintained and some were dismantled. When he came back in 2013, none of the equipment could be restored.

2014

- **With increasing cost of fuel and used cooking oil, Mayor Perez has been asking DOST to make the used plastic bags brittle for shredding and use in making concrete**

MUNICIPAL ORDINANCE NO. 2014-1361

(EXPANDED PLASTIC ORDINANCE)

- **Prohibition on the use of plastic carry-out bags**
- **Prohibition on the distribution and use of disposable single use plastic drinking straw**
- **Prohibition of the use of plastic bags used in making ice for take-out soft drinks, juice, and other beverages**

- **Regulated use of plastic bags for safety of selected food products**
 - a. meat and meat products**
 - b. Fish**
 - c. Soup or broth-based dishes**
 - d. refrigerated produce**
 - e. Chopped vegetables**
 - f. Chopped fruits**
 - g. Rice in the month of July to December**

- **All retail establishments shall provide the customers with carry-out paper bags, reused carton boxes or reusable bags at the cashier counter. Customers should be encouraged to bring their own bags and/or containers**
- **Plastic waste should be cleaned and dried prior to submission to the barangay hall for proper disposal**

- **Members of the Task Force Kalinisan with Mayor written authorization may enter retail establishments to inspect their compliance to this ordinance**

PENALTIES

Fines similar to the previous ordinance

Los Banos residents who can not afford to pay, community service of 12 hours for every P 500 fine.

Violator can appeal in writing to the Mayor regarding the issuance of citation ticket.











Draft Additional Ordinance on Single Use Plastic Bags

- Ban single use thin plastic bags in the Municipal Offices and activities
- At the barangay 'talipapa' market, regulate the use of single use plastic bags and use paper bags or reusable thick plastic bags
- Provide raffle tickets for costumers who bring reusable containers for wet goods in the two public markets to replace single use plastic bags

Lessons Learned

- Sustainability of implementing of local ordinance on plastic waste depends on the commitment of the succeeding Local Chief Executive. This is due to lack of national law, which DENR and DILG can imposed on the LGUs.
- Update on existing ordinance on plastic ordinance should indicate that Barangay Government is co-implementator to avoid an excuse that the barangay has not yet adopted it.

- **Recycling should be free from health risk to the workers and cost effective**
- **Local government units can play a major role in the circular economy for single use plastic bags, reduction of use of this packaging material at the consumer level and in collection of cleaned and dried plastic bags for processing**

Improvement of local governance of single use plastic bags

- The national law on reusable plastic bags should require the manufacturer to print on each bag the name of the manufacturer and thickness of the plastic bags to facilitate the monitoring by the M/C ENROs and barangay environmental enforcers to avoid free riders.

Points to Ponder



No amount of high technology and financial capability can solve the single use plastic waste problem without

DISCIPLINED PEOPLE

DISCIPLINE is the road to community and nation progress and future circular economy for single use plastic bags in the Philippines

MARAMING SALAMAT PO