**REPUBLIC ACT NO. 9003**  
**THE ECOLOGICAL SOLID WASTE MANAGEMENT ACT OF 2001**

**Compliance of Barangay Luz, Cebu City**

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<th>Requirements under R. A. 9003</th>
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| 1. Local Government Solid Waste Management Plans | “The [LGU], through its local solid waste management boards, shall prepare its respective 10-year solid waste management plans consistent with the national solid waste management framework: Provided, That the waste management plan shall be for the re-use, recycling and composting of wastes generated in their respective jurisdictions: Provided, further, That the solid waste management plan of the LGU shall ensure the efficient management of solid waste generated within its jurisdiction.” Sec. 16, R. A. 9003 | Plan was already accomplished and is presently being actively implemented. | → A 10 year plan of the Solid Waste Management Committee includes the following Key Result Areas:  
✓ Information Education Campaign  
✓ Organization (Bayanihan Centers, Livelihood Trainings)  
✓ Equity (Resources Requirements Manpower Equipment)  
✓ Technicity (Waste Collection)  
✓ Waste Segregation (Recycling, Composting)  
✓ Monitoring and Evaluation  
→ Each mentioned areas contains the following parts:  
✓ Activities which must be accomplished within the prescribed time frame;  
✓ Expected Outcome;  
✓ Responsible barangay personnel or official, recognized organization, and/or private partners;  
✓ Resource Requirements; and  
✓ Time Frame  
→ The plan is specifically for the purpose of recycling and composting of wastes, for an efficient solid waste management. |
| 2. Collection of biodegradable and recyclable wastes | “… Segregation and collection of solid waste shall be conducted at the barangay level specifically for biodegradable, compostable and reusable wastes: Provided, That the collection of non-recyclable materials and special wastes shall be the responsibility of the municipality or city.” Sec. 10, R. A. 9003 | Collection is made regularly | → Garbage collection is scheduled daily from 5 PM to 12 AM only.  
→ Collection is being made efficiently according to waste characterization, whether it is biodegradable or non-biodegradable.  
→ Deployed 5 dump trucks for the collection of wastes. Schedule: MWF - Biodegradable  
TTH – Non-biodegradable  
→ House-to-house waste segregation proper is strictly enforced. The policy of "No Segregation, No Collection" is
| 3. Plan to ensure 100% collection efficiency of biodegradable and recyclable materials | “… The barangay shall be responsible for ensuring that a 100% collection efficiency from residential, commercial, industrial and agricultural sources, where necessary within its area of coverage, is achieved…” Sec. 17 ©, R. A. 9003 | Plan is on the process of implementation; still on progress. | → Garbage are prohibited to be put on the public places unless the garbage truck is starting to collect such.  
→ Deployment of house to house collectors for recyclable materials.  
→ Manpower resources such as Garbage Driver, Drainage Cleaner, Street Cleaner, and Market Cleaner are responsible for such collection.  
→ City Ordinance Nos. 1361 and 2031 are enforced.  
→ There is efficient garbage collection according to waste classification, requiring the residents to segregate their wastes into biodegradable and non-biodegradable before turning it over to garbage collectors for an easy collection.  
→ Wastes from Mall and other commercial and industrial firms comprise a greater percentage of collected wastes, and are also turned over to its recycling and composting programs.  
→ There are processing sites and final disposal sites for the wastes to be recycled and decomposed.  
→ Training of garbage personnel for proper collection through conducting seminars, for an efficient collection.  
→ Residents were oriented on proper disposal of garbage for the them to avoid dumping of garbage anywhere, in accordance with a barangay resolution.  
→ Monthly proper maintenance of garbage trucks is done for lesser breakdown of equipments and avoidance of unnecessary interruptions in the collection.  
→ City Ordinance Nos. 1361 and 2031 are enforced. |
| 4. Implementation schedule to reduce waste by 25% | “Each LGU plan shall include an implementation schedule which shows that within five (5) years after the effectivity of this Act, the LGU shall divert at least 25% of all solid waste from waste disposal facilities through re-use, recycling and composting activities and other resource recovery activities…” Sec. 20. | Percentage was not specified on the implementation plan. | → Recycling, composting and other resource recovery activities are successfully and actively implemented.  
→ Implementation plan was initiated in 20005.  
→ 25% waste reduction/diversion was not specifically mentioned. |
| 5. Mandatory Segregation of Solid Wastes | “The LGUs shall evaluate alternative roles for the public and private sectors in providing collection services, type of collection system, or combination of systems, that best meet their needs: Provided, That segregation of wastes shall primarily be conducted at the source, to include household, institutional, industrial, commercial and agricultural sources: Provided, further; That wastes shall be segregated into the categories provided in Sec. 22 of this Act…” Sec. 21, R. A. 9003 | strictly and actively enforced | → Segregation of wastes is mandatorily done, at the very first place, in the households. The primary responsibility is lodged in the residents themselves.  
→ Should there be a failure to do such, their wastes will not be entertained by the collectors.  
→ Such segregation is also done by the commercial and industrial establishments before handling such wastes to the collectors.  
→ Segregated solid wastes will be immediately transferred to the Barangay Eco-Waste Center, specifically on the Material Recovery Facilities (MRF), for further action needed thereto.  
→ Primarily, such wastes will be recycled and sold.  
→ Some private partners would even buy plastics and metals, even if not recycled yet. |
| 6. Waste Characterization | “For the initial source reduction and recycling element of a local waste management plan, the LGU waste characterization component shall identify the constituent materials which comprise the solid waste generated within the jurisdiction of the LGU…” Sec. 17 (b), R. A. 9003 | under operation | → Wastes are being characterized as to:  
✓ recyclable or that can be produced into another products and become a source of livelihood for the community;  
✓ biodegradable or that can be produced into organic fertilizer from vermin productions and be used for the composting program; and  
✓ special or hazardous wastes which were bought by some businessmen for reuse.  
→ Source of generation includes residential, commercial, and even some governmental materials.  
→ Such characterization generates:  
✓ livelihood through economic enterprise:  
✓ income for the residents of the community thru buying of recyclables and composting process: and  
✓ savings for capital fund. |
| 7. Processing Plan for the Wastes | “The Plan shall define the methods and the facilities required to process the solid waste, including the use of intermediate treatment facilities for composting, recycling, conversion and other waste processing systems. Other appropriate waste processing technologies may also be considered provided that such technologies conform with internationally-acceptable and other standards set in other laws and regulations.” Sec. 17 (d), R. A. 9003 | under implementation; wastes were being processed or treated accordingly. | → Able to sell 420,551.05 kilos of recyclable wastes, amounting to 1,261,653.15 php as of March 2005, from different waste characterizations, such as bottles, plastics, aluminums, zinc, and scrap irons which are most common in the households.  
→ Solid wastes were being processed into new products, manually done by the members of the Barangay Luz Homeowner’s Multi-purpose Cooperative (BLHMPG) who are mostly women and senior citizen. However, every resident is also highly encouraged to participate in processing such recycled products in their own houses.  
→ Biodegradable wastes are being processed and decomposed through vermi culture or vermin composting, wherein a certain worm specie of African Night Crawlers are use to produced organic fertilizers.  
→ Specifically, Vermi Composting has the following process:  
  ✓ Gathering of Materials;  
  ✓ Preparation of Materials;  
  ✓ Anaerobic Decomposition (10-12 days);  
  ✓ Aerobic Decomposition (30-35 days); and  
  ✓ Vermi Compost (market, on-farm use) and Earthworm Biomass (recycle, vermin production).  
→ Another composting process, Phytotrophic Bacteria Composting, is also used which is done through the following procedures:  
  ✓ Preparation of raw materials (shredder wastes);  
  ✓ Mix materials with sawdust;  
  ✓ Spray bio-solution to waste until moist;  
  ✓ Mix all materials and form heap (as desired);  
  ✓ After 7 days, mix all materials once more with bio-solution;  
  ✓ Mix every 7 days and spray with bio-solution until 40 days; and  
  ✓ Harvest.  
→ Ayala Foundation Inc. distributed worm beds to the different Bayanihan Centers who participated in the composting program.  
→ Biodegradable and recyclable wastes, upon collection, are being brought to the Barangay Eco Waste Center for further segregation and treatment. |
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<td>8. Recycling Program</td>
<td>“The recycling component shall include a program and implementation schedule which shows the methods by which the LGU shall, in combination with source reduction and composting components, reduce a sufficient amount of solid waste disposed of in accordance with the diversion requirements set in Sec. 20…” Sec. 17 (f), R. A. 9003</td>
<td>under active enforcement and operation; progressively ongoing</td>
<td>→ “Kwarta sa Basura Program” (KSBP) was officially launched on October 5, 2002 with only 3 Bayanihan Centers. KSBP has the following goals and objectives: ✓ Promotes self-reliance and people empowerment; ✓ Forgess trust, unity, and harmony among the members; ✓ Promotes cooperative as a way of life; ✓ Encourages economic development; ✓ Promotes waste segregation at source, hence, improves solid waste management; ✓ Trains communities for composting processes; ✓ Promotes savings mobilization and supports entrepreneurship activities; ✓ Promotes clean surroundings and reduce garbage; and generally, ✓ Deepens environmental concern and awareness. → Barangay Resolution No. 11-70 was enacted promoting the KSBP as one of the mechanisms in Solid Waste Reduction. → The constituents themselves voluntarily participate on the program in making recycled products, manually done. → With only 3 Bayanihan Centers during its launching, as many as 38 Centers are presently actively involved. → Some of the products rooted from recycled wastes are: ✓ Bags from papers and juice packs; ✓ Hats from plastic gallons; ✓ Sandals from juice packs and plastics; ✓ Flower vase and other home and office decorations from papers. → Private partners such as commercial malls and hotels, and even foreign individuals from Japan and European Countries buy such products. → The income or proceeds of the program are entirely benefited by the residents themselves, to motivate more residents to actively participate on the program.</td>
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### 9. Composting Program

*The composting component shall include a program and implementation schedule which shows the methods by which the LGU shall, in combination with the source reduction and recycling components, reduce a sufficient amount of solid waste disposed of within its jurisdiction to comply with the diversion requirements of Sec. 20 hereof...* Sec 17 (g), R. A. 9003

- **Buying of recyclable materials is conducted weekly.**
- **Forms linkage with community scrap buyers**
- **As of March 2007, the recyclable wastes generate up 3.8 million pesos.**

| → Methods used for composting wastes are: |
| Vermi Composting; and |
| Photosynthetic Bacteria Composting. |
| (refer to requirement no. 7 for the procedures) |
| → Composting Program aims to: |
| ✔ earn additional income for the members; |
| ✔ minimize the collected garbage; |
| ✔ learn and appreciate the scientific process of composting; |
| ✔ produce environmentally organic fertilizer; and |
| ✔ promote compost products. |
| → Composting Bins were distributed to the Bayanihan Centers and even to some households, which shows the cooperation of both Bayanihan members and Household members to the program. |
| → A seminar was conducted aiming to orient the members and residents on the composting process. |
| → The Barangay Council, through BLHMPC, contact buyers for the products and even made it expose to the media for local and national recognition. |
| → Sold almost 30 sacks of organic fertilizer per week (Expected outcome is 50 sacks per month). |
| → Essential resources for the program include: |
| ✔ African Night Crawler; |
| ✔ Sawdust; |
| ✔ Household and other biodegradable wastes. |
| → Biodegradable wastes are reduced since residents are encouraged to have composting on their own houses. |
| → The products are as well used on the vegetable and herbal and ornamental plan garden located at the Eco-waste Center of the barangay.
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| **10. Material Recovery Facility (MRF)** | "There shall be established a Materials Recovery Facility (MRF) in every barangay or cluster of barangays... The MRF shall receive mixed waste for final sorting, segregation, composting, and recycling. The resulting residual wastes shall be transferred to a long term storage or disposal facility or sanitary landfill." Sec. 32, R. A. 9003 | functionally established | → Barangay Luz Homeowner’s Multi-purpose Cooperative (BLHMPC) acts as the project coordinator.  
→ MRF is located at the Barangay’s Eco Waste Center.  
→ The garbage collected are turned over to MRF for final segregation of waste as to recycling or composting waste.  
→ Wastes which are still not acted upon segregation are being kept or stored in the MRF.  
→ Identified Junkshop/ Scrap Buyers as MRF of the Barangay  
→ Linkages with various Non-Government Organizations and Commercial Establishments.  
→ Residents are encouraged to immediately turn-over their wastes to the MRF for efficient final segregation therein. |
| **11. Transport for Solid Waste – separate compartment/ vehicle/ schedule** | "The use of separate collection schedules and/or separate trucks or haulers shall be required for specific types of wastes. Otherwise, vehicles used for the collection and transport of solid wastes shall have the appropriate compartments to facilitate efficient storing of sorted wastes while in transit." Sec. 24, R. A. 9003 | regular operation for transport of solid waste | → Wastes are transported by the following barangay funded equipments:  
✓ 1 unit Compactor Truck  
✓ 1 unit Open Dump Truck  
✓ 1 unit Mini Open Dump Truck  
✓ 1 unit Shredder Machine  
✓ 2 units Bicycle with Side Car  
→ Upon transport, wastes are already segregated at source since there is a policy of “No Segregation, No Collection”.  
→ Garbage compartments are not much provided since wastes are not properly segregated upon disposal.  
→ Garbage collection is scheduled daily from 5 PM to 12 AM only. |
| **12. No Open Dump Site/s for wastes** | "No open dumps shall be established and operated, nor any practice or disposal of solid waste by any person, including LGUs, which constitutes the use of open dumps for solid wastes, be allowed after the effectivity of this Acts..." Sec. 37, R. A. 9003 |   |   |

*The Ecological Solid Waste Management Act (R. A. 9003) Compliance Matrix For Barangays  
PHIL. EARTH JUSTICE CENTER AND UC COLLEGE OF LAW*
| 13. Education and Public Information Campaign | "The education and public information component shall describe how the LGU will educate and inform its citizens about the source reduction, recycling and composting programs. The plan shall make provisions to ensure that information on waste collection services, solid waste management and related health and environmental concerns are widely disseminated among the public. This shall be undertaken through the print and broadcast media and other government agencies in the municipality. The DECS and the Commission on Higher Education shall ensure that waste management shall be incorporated in the curriculum of primary, secondary and college students." Sec. 17 (i), R. A. 9003 | Various seminars and orientations were already conducted. | → Conducted series of Information, Education and Communication (IEC) Campaign on “Kwarta sa Basura Program” and Bayanihan Savings Replication Program. These are done through house to house orientations and community association meetings. It includes topics on Waste Segregation, City Ordinance No. 1361 and Republic Act No. 9003.  
→ Conducted orientation for youth on Solid Waste Management Awareness, led by the Sangguniang Kabataan (SK) Council, and thereupon organized the “Youth para sa Kalikupan” for SWM Program.  
→ Conducted orientation for urban gardening and Vermi Composting.  
→ Orientation on Proper Disposal of Garbage for the residents  
→ Made a Campaign for Teachers’ information and School Children’s Information through film showing and distribution of leaflets, for an active cooperation of the Education Sector on SWM.  
→ Serves as one of the Host of the Community Welfare Training Service (CWTS) Program of college students enrolled in National Training Service Program (NSTP), specifically focusing on SWM.  
→ Able to train and organize pool of facilitators and trainors to disseminate SWM to others.  
→ Able to train and educate the residents on how to save and earn income from their own wastes.  
→ Posted flyers on some public places within its jurisdiction regarding various city ordinances, barangay resolutions, and policies which are related to SWM and environmental protection.  
→ Promote environmental awareness of the constituents |
| 14. Handling of Special Wastes | "The special waste component shall include existing waste handling and disposal practices for special wastes or household hazardous wastes, and the identification of current and proposed programs to ensure the - Minimal handling  
- Considering that there are no manufacturing industries operating within the Barangay area, there are only few hazardous wastes to dispose of  
- Segregated wastes can be accommodated at the Barangay Material Recovery Facility, from there, it will go to buyers of special waste.  
- Special wastes include: electrical equipment appliances, LED |
| 15. Resource requirement and funding | **“The funding component includes identification and description of project costs, revenues, and revenue sources the LGU will use to implement all components of the LGU solid waste management plan…”** Sec. 17 (k), R. A. 9003 | - Complied
- Less budget allotment for the recycling and composting because funding is more generated from the private partners and the city and provincial government.
- They are allocating more budget for the various trainings conducted for solid waste management awareness |

| 16. Incentives Schemes | **“A program providing for incentives, cash or otherwise, which shall encourage the participation of concerned sectors shall likewise be included in the plan.”** Sec. 17 (m), R. A. 9003 | - Well-provided
Various contests are being held like:
- Clean and Green Contest for the Cleanest Sitio
- Products from Waste Contests
- Contest for the Highest Number of Kilos Segregated per Cluster
- Contest for Sustainable and Manageable Composting Centers
- Livelihood Training Programs especially for women |

| 17. Establishment of Multi Purpose Environment Cooperatives or Association | **“Multi-purpose cooperatives and associations that shall undertake activities to promote the implementation and/or directly undertake projects in compliance with the provisions of this Act shall be encouraged and promoted in every LGU.”** Sec. 13, R. A. 9003 | - Progressing
- Linkage with Ayala Center for waste management, in return, Barangay Luz residents will be given more priority with regards to employment opportunities
- Various hotels are buying their recycled for utilization in the hotel services
- Partnership with other foreign countries for exportation of their products
- Other LGU’s from all over the country are seeking their aid for effective solid waste management practices |

| 18. Partnership with Private Sector, Civil Society, Government | **“The plan shall likewise indicate specific measures to promote the participation of the private sector in the management of solid wastes, particularly in the generation and development of the essential technologies for solid waste management. Specific projects or component activities of** | - Progressing
- Linkage with Ayala Center for waste management, in return, Barangay Luz residents will be given more priority with regards to employment opportunities
- Various hotels are buying their recycled for utilization in the hotel services
- Partnership with other foreign countries for exportation of their products
- Other LGU’s from all over the country are seeking their aid for effective solid waste management practices |
| 19. Active Solid Waste Management Committee | **Section 17, R. A. 9003** | - Operational | - In cooperation with various sectoral organizations such as the women, fathers, gay community and children and youth |
- Responsible for the compliance of RA 9003 in Barangay Luz  
- Has implemented socio-economic development activities for the residents |
Conclusion:

Barangay Luz is undoubtedly the model barangay for excellent compliance of Solid Waste Management. As a “Galing Pook” awardee, the barangay has managed to sustain its plans and programs relevant to environmental governance. It has effectively implemented the solid waste segregation policy espoused in R.A. 9003. Furthermore, the barangay has successfully accomplished the following:

1. Spearheading numerous activities and programs relevant to Solid Waste Management;
2. Training residents to do segregation of wastes in their own homes;
3. Implementing waste management and recycling schemes such as the “Kwarta sa Basura Program”
4. Engaging the active participation of women in livelihood activities such as making new products out of recyclable materials; and
5. Training residents to do their own composting.

However, the Barangay engages only minimal handling of special wastes or household hazardous wastes. Considering that there are no manufacturing industries operating within the Barangay area, there are only few special wastes to dispose of. Special wastes include: electrical equipment appliances, LED batteries, styrofoams and junk cellphone and cellphone batteries.
**Recommendations:**

Barangay Luz has long been fully complying the requirements set forth by the law on solid waste management especially on waste segregation, recycling and composting. However, due to the capacity of its resources and facilities, the barangay has minimal handling only of special wastes. R.A. 9003 provides that “special waste component shall include existing waste handling and disposal practices for special wastes or household hazardous wastes, and the identification of current and proposed programs to ensure the proper handling, re-use, and long-term disposal of special wastes.”

Apparently, setting up a long-term program for handling of special wastes or household hazardous wastes could be beyond the capacity of the barangay. It is but proper for the City Government of Cebu to propose long-term programs to ensure proper handling, re-use and long-term disposal of wastes.

Barangay Luz is worthy of recognition for its efforts and best practices in implementing not just R.A. 9003 but also R.A. 7160 The Local Government Code through its participatory form of local governance.