



Republic of the Philippines  
**HOUSE OF REPRESENTATIVES**  
Quezon City, Metro Manila

**TWENTIETH CONGRESS**  
First Regular Session

**House Bill No. 6118**



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Introduced by **Representative KATRINA REIKO CHUA - TAI**  
*1<sup>st</sup> District, Zamboanga City*

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**AN ACT**  
**ADOPTING THE USE OF REFILL, RECYCLE, AND RESTORE (3R) MACHINES FOR BUSINESS ENTERPRISES IN THE COUNTRY TO INCORPORATE IN THEIR DAILY OPERATIONS TO STRENGTHEN REPUBLIC ACT NO. 9003, OTHERWISE KNOWN AS THE “ECOLOGICAL SOLID WASTE MANAGEMENT ACT OF 2000,” AND REPUBLIC ACT NO. 11898, OR THE “EXTENDED PRODUCER RESPONSIBILITY ACT OF 2022,” AND FOR OTHER PURPOSES**

**EXPLANATORY NOTE**

Plastic pollution in the Philippines calls for bold, heartfelt, and imaginative solutions. Picture this: every day, Filipinos discard 160 million plastic sachets, nearly 60 billion each year. Waste audits reveal we use 48 million shopping bags and 45 million thin-film 'labo' bags daily. These figures show how deeply single-use plastics are woven into our daily lives.

The country generates approximately 2.7 million tons of plastic waste annually, according to the World Bank, much of which is mismanaged and ends up in landfills, open dumpsites, waterways, and even the ocean. The Climate Change Commission warns that this continuous leakage threatens ecosystems and livelihoods nationwide. The Department of Environment and Natural Resources further estimates that the Philippines loses US\$890 million each year due to unrecovered or unrepurposed recyclable plastics, resources that could have been reinvested into communities, jobs, or new industries.

These numbers are more than statistics, they reflect people's lives. In coastal villages, fishermen haul in nets full of plastic, not fish. In city streets, waste overflows, burdening the most vulnerable communities. Plastic pollution hits hardest those least able to recover.

Despite the intentions behind Republic Act No. 9003, the Ecological Solid Waste Management Act of 2000, and Republic Act No. 11898, the Extended Producer Responsibility Act of 2022, the scale and complexity of the single-use plastic crisis remain overwhelming. Recycling rates are low, and many small-format plastics, especially sachets, still lack formal, accessible collection, recovery, or repurposing systems.

Yet hope is rising. Innovative solutions like Refill, Recycle, and Restore (3R) machines are helping us stitch circular-economy habits into the fabric of daily life. Imagine refilling stations where people top up reusable containers, reverse-vending machines that sort and process empty packaging, and automated units that clean containers for reuse. By empowering everyone to

return, refill, or repurpose materials, these 3R machines not only reduce waste but also help businesses fulfill their environmental responsibilities in practical, measurable ways.

This proposed measure envisions a nationwide framework that not only requires but also empowers businesses, especially retailers, manufacturers, and fast-moving consumer goods companies, to integrate 3R machines into their daily operations. More than just reducing waste, this bill inspires every establishment to create programs that give new life to returned plastics, turning sachets, bottles, and wrappers into fresh products, building materials, or inventive upcycled goods.

Public education is just as vital. Every Filipino, every household, consumer, student, and barangay, deserves the knowledge and tools to return, reuse, or reinvent single-use plastics through well-marked 3R systems and vibrant community programs.

The government should join forces with the private sector, offering incentives like tax credits, grants, financing, and public recognition to those who champion the 3R approach. Local Government Units can lead the way by integrating 3R machines into local waste management and ensuring collected materials are directed to proper recycling and repurposing.

This bill is more than policy. It is an urgent pledge to future generations, our communities, and the environment that sustains us. A collaborative action is needed now. Through this measure, we break free from single-use plastics and foster a culture of reuse, securing a healthier legacy for those who come after us.

**IN VIEW OF THE FOREGOING, immediate passage of this bill is earnestly sought.**



KATRINA REIKO CHUA - TAI



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**AN ACT**

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*Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:*

**SECTION 1. Title.** - This Act shall be known as the “3R Machines Integration Act.”

**SECTION 2. Declaration of Policy.** - It is the policy of the State to promote ecological sustainability, resource recovery, and circular-economy practices in accordance with Republic Act No. 9003 and Republic Act No. 11898. The State shall strengthen waste-reduction efforts by promoting and integrating technological innovations that reduce single-use plastics, encourage material reuse, and support extended producer responsibility.

**SECTION 3. Definition of Terms.** - As used in this Act, the following terms are defined as follows:

**“3R Machines”** shall refer to automated or semi-automated devices for refilling, recycling, restoring, or recovering materials or product containers for reuse or repurposing.

**“Business Enterprises”** shall refer to all establishments engaged in retail, manufacturing, service, or distribution activities.

**“Micro Enterprises”** shall refer to business entities with total assets of not more than Three Million Pesos (₱3,000,000), excluding the value of land on which the business operates, and/or with a workforce of not more than nine (9) employees, as classified under the guidelines of the Department of Trade and Industry (DTI).

1        **“Small Enterprises”** shall refer to business entities with total assets exceeding Three  
2 Million Pesos (₱3,000,000) but not exceeding Fifteen Million Pesos (₱15,000,000),  
3 excluding land, and/or with a workforce of ten (10) to 99 employees, as classified under  
4 the guidelines of the DTI.

5        **“Medium Enterprises”** shall refer to business entities whose total assets exceeding  
6 Fifteen Million Pesos (₱15,000,000) up to One Hundred Million Pesos (₱100,000,000),  
7 excluding the value of land on which the business operations, buildings, and equipment  
8 are situated, and/or whose total employment consists of between 100 and 199 employees,  
9 as classified under prevailing guidelines of the Department of Trade and Industry (DTI).

10       **“Large Enterprises”** shall refer to business entities whose total assets exceed One  
11 Hundred Million Pesos (₱100,000,000), excluding the value of land on which the  
12 business operations, buildings, and equipment are located, and/or whose employment  
13 size is 200 workers or more, as classified under the guidelines of the Department of  
14 Trade and Industry (DTI).

15       **“Repurposing”** shall refer to the process of transforming recovered plastics into new  
16 materials or products.

17       **“Reverse-Vending Machine (RVM)”** shall refer to a type of 3R machine that accepts and  
18 processes used containers and materials.

19       **“Refilling Machines”** shall refer to automated or semi-automated devices designed to  
20 dispense products, such as liquids, powders, grains, or other compatible goods, directly  
21 into reusable containers brought by consumers.

22       **“Fast-Moving Consumer Goods (FMCG)”** shall refer to goods sold quickly and at  
23 relatively low cost, including food, beverages, toiletries, and household items.

24       **SECTION 4. Mandatory Integration of 3R Machines.** - All medium and large business  
25 enterprises, especially those engaged in retail, malls, supermarkets, and fast-moving consumer  
26 goods (FMCG) sectors, shall install and operate at least one (1) accredited 3R machine within  
27 their premises. These establishments shall ensure that the machines are accessible to consumers  
28 and properly maintained to support effective waste reduction, recycling, and recovery efforts.

29       Micro and small enterprises are likewise encouraged to adopt 3R machines as part of  
30 their sustainability initiatives. To support their participation, these enterprises shall be eligible  
31 for government assistance, including technical support, incentives, and other forms of aid as may  
32 be determined by the implementing agencies.

33       **SECTION 5. Repurposing Program.** - All business enterprises required to install 3R  
34 machines shall also develop or participate in repurposing programs aimed at converting  
35 collected single-use plastics into new or useful products, raw materials, or construction inputs.

36       **SECTION 6. Standards and Accreditation.** - The Department of Environment and  
37 Natural Resources (DENR), in coordination with the Department of Trade and Industry (DTI)  
38 and the Department of Science and Technology (DOST), shall formulate technical standards,  
39 accreditation guidelines, and performance criteria for all 3R machines.

**SECTION 7. *Innovation, Research, and Development.*** - The Department of Science and Technology (DOST), Department of Environment and Natural Resources (DENR), the Department of Trade and Industry (DTI), and accredited research institutions, shall promote and support innovation, research, and development (R&D) initiatives related to refill, recycle, and restore (3R) technologies. These initiatives shall include, but not be limited to:

- a. Development and improvement of 3R machines, repurposing systems, and plastic-recovery technologies;
- b. Research on sustainable materials, circular-economy systems, and environmentally responsible product design;
- c. Creation of pilot-testing sites, innovation hubs, or laboratories to test new 3R technologies;
- d. Grants, research funding, and technical assistance programs for inventors, universities, start-ups, and private enterprises engaged in 3R-related innovations.

The DOST shall conduct periodic studies to assess the efficiency, safety, and environmental impact of emerging technologies and recommend improvements for national adoption.

**SECTION 8. *Public Education and Awareness.*** - The DENR, DTI, Department of Education (DepEd), and LGUs shall implement continuous nationwide education campaigns on the proper disposal, return, reuse, and repurposing of plastics and the use of 3R machines.

**SECTION 9. *Incentives.*** - Businesses that adopt and maintain 3R machines and repurposing programs shall be entitled to incentives. The Department of Budget and Management (DBM), the Bureau of Internal Revenue (BIR), the Department of Environment and Natural Resources (DENR) and the Department of Trade and Industry (DTI) shall formulate tax incentives in favor of business enterprises immediately after the passage of this act. Incentives shall must include the following:

- a. Tax deductions or credits for acquisition and operation of 3R machines;
- b. Access to government grants or financing for sustainability initiatives; and
- c. Public recognition and certification.

**SECTION 10. *Role of the Barangays and Local Government Units.*** - The Barangays and LGUs shall incorporate 3R-machine programs into local solid-waste management plans, monitor compliance within their jurisdictions, and coordinate collection and recycling logistics.

**SECTION 11. *Monitoring and Reporting.*** - Business enterprises shall submit quarterly reports to the DENR and LGUs detailing the volume and types of materials collected, refilled, recycled, or repurposed through 3R machines.

**SECTION 12. *Transfer of Best Practices and Capacity Building.*** - The DENR, DTI, and DOST, in partnership with LGUs, academic institutions, and private-sector stakeholders, shall facilitate the transfer of best practices related to 3R machine operations, plastic recovery, recycling, repurposing, and circular-economy systems.

For this purpose, the concerned agencies shall:

- a. Develop and disseminate manuals, guidelines, and training modules on the effective use and maintenance of 3R machines;

- b. Conduct regular seminars, workshops, and capacity-building programs for LGUs, business enterprises, and community organizations;
- c. Establish a national repository of successful 3R initiatives and model programs for replication;
- d. Promote knowledge-sharing exchanges between local innovators, international institutions, and foreign counterparts to continually upgrade national standards and practices; and
- e. Integrate best practices into the implementing rules and regulations (IRR) of this Act and into local solid waste management plans.

**SECTION 13. *Implementing Rules and Regulations.*** - The DENR, DTI, DOST, and the Department of Interior and Local Government (DILG) shall jointly issue the IRR within ninety (90) days from the effectivity of this Act.

**SECTION 14. *Appropriations.*** - Funds necessary for implementation shall be included in the annual General Appropriations Act.

**SECTION 15. *Separability Clause.*** - If any provision of this Act is declared unconstitutional, the remainder shall continue to be in full force and effect.

**SECTION 16. *Repealing Clause.*** - All laws inconsistent with this Act are hereby amended or repealed accordingly.

**SECTION 17. *Effectivity.*** - This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

**Approved,**