

Republic of the Marshall Islands

By:

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&

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Background

- Majuro Atoll Waste Company (MAWC) a State-Owned Enterprise with the mandate of collecting, disposing and managing solid waste in Majuro Atoll, the capital of the Republic of the Marshall Islands.
- Majuro Atoll Local Government serves on the Board of MAWC as well as assist in operations of MAWC when needed.
- MAWC receives 34.7 tonnes of waste per day.





Policy Measures Taken

- Sustainable financing & Circular economy (SDGs #6,
 - Container Deposit Legislation amendment to the Styrofoam plastic banning (independent system targeting beverage containers funding itself) endorsed and have been implemented since 2018.
- There is plan to expand the Container Deposit Legislation (CDL) and include other recyclable materials (ELV, white goods, e-waste, others)
- Compliance to the International Convention on hazardous waste movement/export

Implementation Elements (laws, plans, programs, pilot and demonstration projects)

- Container deposit legislation was endorsed and implemented in late 2018 on Majuro (Capital city). Ebeye followed few years later. However, outer islands may not have the operators and machines but it is evidence collection is received in the capital city from outer islands.
- Recycling Initiatives
 - Exports of Used lead acid batteries (Ulabs) and aluminum cans successful and on-going
 - **■** Composting diverting green waste from final disposal site.
 - Diversion of cardboard/papers into fire briquette
 - Develop educational materials for community engagement and increase awareness on practical practices towards recycling initiatives and waste management.
 - Strengthen coordination at all levels.

| | BATTE | | TOTAL handling shipping | | | | /55 A.E.T. 0.5 | | |
|-----------|----------------------|----------------------------|-------------------------|----------|-------------|------------|----------------------|--------------------|--------------|
| DATE | TOTAL WEIGHT | OTAL WEIGHT TOTAL COST | | | TAL REVENUE | | 'ENUE NET OF COST | BUYER PRICE | |
| | OF BATTERY IN KGS | TERY IN KGS AT 30 CENTS/KG | | | | | | | |
| NOV.2021 | 23,804.53 | 3 \$7,141.36 | \$ 1 | 0,043.13 | \$ | 16,392.48 | \$ | 6,349.35 | \$660/TON |
| JAN.2022 | 18,334.20 \$5,500.26 | | \$ | 8,179.40 | \$ | 11,439.70 | \$ | 3,260.30 | \$600/TON |
| JUL.2022 | 18,334.20 \$5,500.26 | | \$ | 9,264.40 | \$ | 10,661.72 | \$ | 1,397.32 | \$560/TON |
| SEPT.2023 | 18,252.56 \$5,475.77 | | \$ | 9,238.32 | \$ | 10,663.84 | \$ | 1,425.52 | \$560/TON |
| OCT.2024 | 15,168.13 | \$4,550.44 | \$ | 8,309.08 | \$ | 10,641.70 | \$ | 2,332.62 | \$675/TON |
| | TOTAL | \$28,168.09 | \$45,034.3 | 33 | \$59,799.44 | | \$14,765.11 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Summary | | | | | | | | | |
| Year | Can | Pet | Bottle | Glass | | Total | 5 cer | nts | 1 Cent |
| 2 | 018 90 | 05,540 | 545,310 | 11, | 752 | 1,462,602 | \$7 | 3,130.10 | \$14,626.02 |
| 2 | 019 9,3 | 40,317 | 5,492,529 | 155, | 743 | 15,988,589 | \$79 | 9,429.45 | \$159,885.89 |
| 2 | 020 7,80 | 07,113 | 5,098,659 | 76, | 551 | 12,982,323 | \$64 | 9,116.15 | \$129,823.23 |
| 2 | 021 7,9 ⁴ | 40,344 | 5,287,751 | 42, | 181 | 13,270,276 | \$66 | 3,513.80 | \$132,702.76 |
| 2 | 022 7,19 | 91,532 | 5,313,588 | 45, | 343 | 12,550,463 | \$62 | 7,523.15 | \$125,504.63 |
| 2 | 023 6,93 | 30,258 | 258 5,103,135 | | 668 | 12,083,061 | \$60 | 4,153.05 | \$120,830.61 |
| 2 | 024 6,5 | 14,748 | 1,798,990 | 56, | 815 | 11,370,553 | \$56 | 8,527.65 | \$113,705.53 |
| 2 | 025 5,2° | 79,049 | 3,696,739 | 26, | 790 | 9,002,578 | \$45 | 0,128.90 | \$90,025.78 |
| TOTAL | 51,90 | 08,901 36 | 5,336,701 | 464, | 843 | 88,710,445 | \$4,43 | 5,522.25 | \$887,104.45 |

Key Milestones Achieved

- Implementing legislation of container deposit on beverages continues exporting aluminum cans
- Working towards diverting 40% from final disposal area for processing (compost & paper briquitte-fuel)
- Building and strengthening community awareness to change behavioral toward waste management

mawc epa malgov



With the assistance of the EU funded PacWastePlus programme[I], MAWC and the RMI EPA identified that the two largest components of waste to the dumpsite are Paper/Cardboard and Organics.

MAWC and the RMI EPA seek to divert these two components away from the dumpsite and into resources that will benefit Majuro.

[1] European Funded and Secretariat of the Pacific Regional Environmental Programme, support program

I.ORGANIC
a) What will we do with this
'waste'? COMPOST. These are
processed at our Laura facility into
nutrient rich material called
compost. Compost is good for our
gardens and can helps grow
healthy plants with less need to buy
imported fertilizer
b) A mobile wood chipper have
been purchased and will be
servicing the Ocommunity

I.Paper & Cardboard
a) What will we do with this 'waste'? Fire
Briquettes! Paper & Cardboard can be
shredded and processed in a press to make
small briquettes that we can use to start our
fires, replacing the need to collect firewood
and minimize need to buy coal.
b) A shredder machine have been
purchased and will be operating at the
MAWC facility to shred these materials.
c) Collection bins for papers and cardboard
will be distributed to the businesses



Problem Being Solved

"Disk" shredders were utilised by the Majuro Atoll Waste Company to process organic materials for composting but were struggling to process the volume and type of material being received.

Due to the tough high fibrous nature of the vegetation in the Pacific and in atoll nations in particular, the disk shredders needed to be stopped regularly (approximately every 30 minutes) for the disk blades to be cleared, and to manage overheating.

Requiring a safer and more efficient solution to manage the organic material throughput, due diligence investigation was undertaken – with results indicating "drum shredders" to be an effective option for the Majuro Atoll Waste Company.

Current Situation at the Majuro Atoll Waste Company - Organic Materials Management:

- Input material of 7 tonnes per week (approximately 14m³):
- S tonnes high fibrous vegetation including pandanus, coconut fronds, flax, and banana leaves
- 2 tonne other organics such as hedge clippings, and food organics
- Operate a 7 Bay indoor composting facility



Challenges And Constraints Faced

- Limited access to recycling market to export waste materials that can be treated and processed.
- Advance technology and equipment are challenges to maintain due to situated environment
- Limited data availability for decision making

