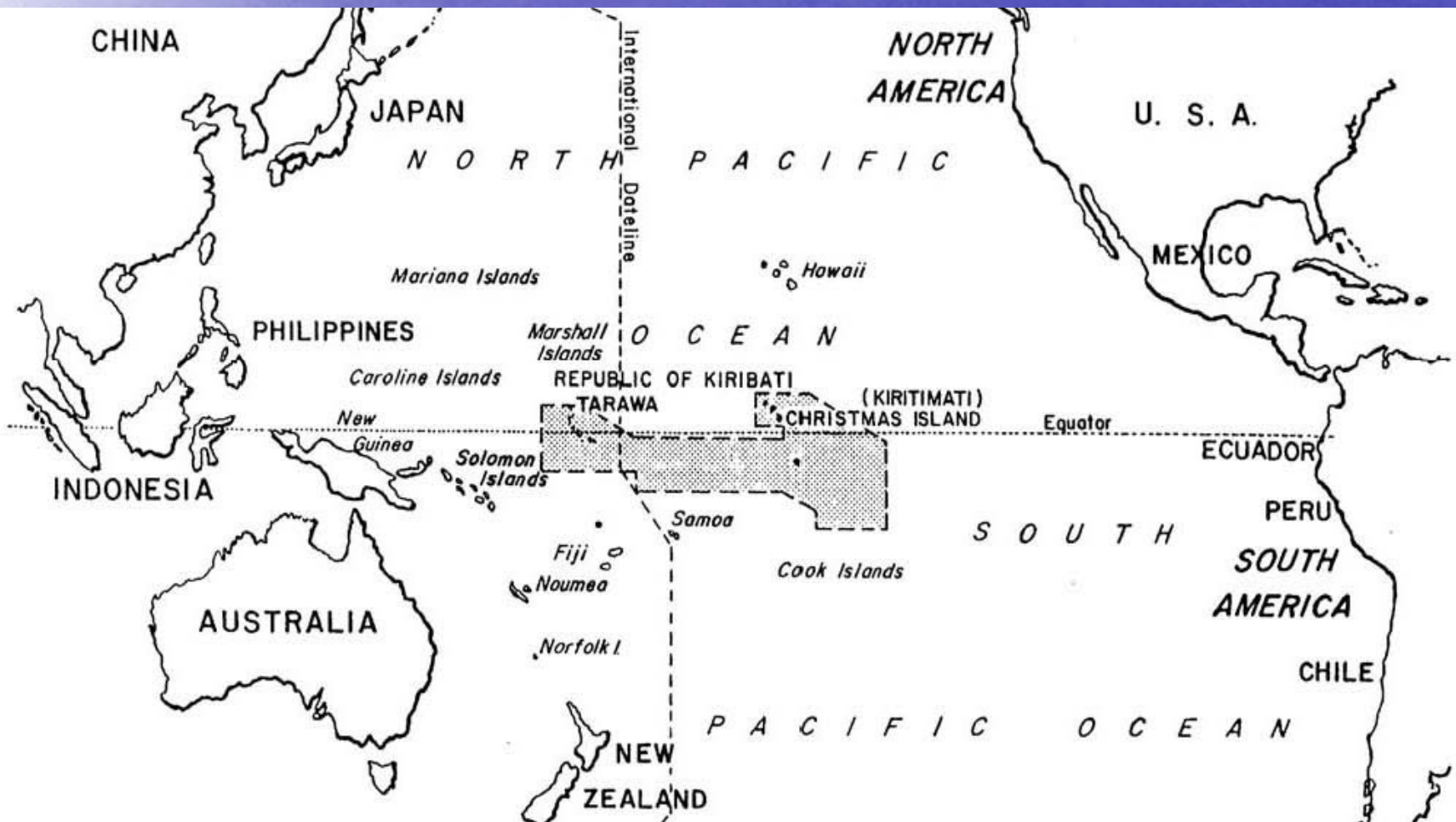


From Scrap to Sustainability: Advancing a Sustainable End-of Life Vehicle Processing Operation in Kiribati

Presented by
Alice Leney

Kiribati Solid Waste Management Programme
Ministry of Environment, Lands and Agricultural Development,
Kiribati

(Where is the) Republic of Kiribati (KIRIBAS)



Atolls with very restricted land



Overview

- Kiribati Waste Management & Resource Recovery Strategy calls for ELV recycling;
- This can be done by putting cars and light trucks into the existing Deposit/Refund CDS legislation which has operated for 20 years;
- All the equipment to recycle cars is already on Tarawa and has been in use since 2022;
- This is a proposal for legislative change that has NOT been, as yet, formally agreed to by GoK;
- Existing model of Kaoki Maange recycling system has operated commercially for 20 years now.



Key Numbers

- Car imports have gone from around 600/yr in 2016 to c.1,200/yr today;
- Landed price of the **cheapest** cars now c.\$10,000;
- Life expectancy of cars? 5 years?
- MFAT ELV project collected 2,650 ELVs in 15 months;
- Expected 1,000 ELVs/yr = 20 ELV/wk;
- Recent value of baled ELV: US\$300/t
- Scrap value only is not sufficient.

Key Points

- Dramatic increase in imports of vehicles;
- ELVs take up land and cause pollution;
- Many vehicles become an ELV through want of spare parts;
- Value of baled scrap cars is low, shipping costs are high;
- Collection of ELVs is a major challenge;
- Capital cost of equipment already covered.

The Plan

- Add cars and light trucks to the Special Fund (waste materials recovery) Act 2004 Regulations;
- Levy a **Deposit** at import: A\$1,000
- Pay a **Refund** to anyone presenting an ELV:\$900, but **includes free collection**;
- Contract a System Operator (SO) to run equipment and pay out refunds;
- SO to wreck the ELVs for spare parts and sell out to the public & mechanics.

Vehicle Deposit & Refund System



Deposit at import: \$1k?



Claim full Deposit: \$1k



Refund: \$900



Handling Fee Operations: \$100



Revenue Streams for SO

- Handling Fees: at \$100/ELV would provide typical \$2,000/week for 20 ELVs;
- Wreck ELVs for **spare parts**: SO must have the capacity to store and organise spares for re-sale to local mechanics;
- Tow truck services: no tow truck on TRW;
- Site clearance of scrap to release land;
- Non-ferrous and PP plastic export sales;
- Baled ELVs.

Spare Parts Recovery



New Materials Recovery Facility

- New MRF will be operating by Easter;
- Site is on rehabilitated landfill;
- Will process ELVs using a the car baler;
- MRF shed has space for a car parts store to sell our parts locally;
- Recycling of cans/PET/ULAB also in MRF;
- Includes E-waste collection and processing area;
- Maintenance workshop area for equipment;
- 40kWp grid-tie solar PV system for power.



Key Challenges

- Political agreement to change the existing regulations to include vehicles;
- Financial Sustainability;
- Contractual arrangements with SO;
- Maintenance of equipment and servicing;
- Management of spare parts operation;
- Capacity to manage heavy scrap for export;
- ELV legacy waste: Survey before start.

Circular Economy Elements

- **Short Cycle**

Spare parts keep more cars going for longer, build local capacity to repair rather than dispose; reduce outflows of funds to import more cars;

- **Long Cycle**

Recovery of ferrous and non-ferrous scrap metals exported to smelters for manufacturing new products.



Kiribati te bobotoo!!

Thank You

Kam Bati N Rabwa