

HAZARDOUS WASTE MANAGEMENT

DAVID HAYNES

GOINGTROPPO CONSULTING, TASMANIA, AUSTRALIA



Hazardous Waste Management



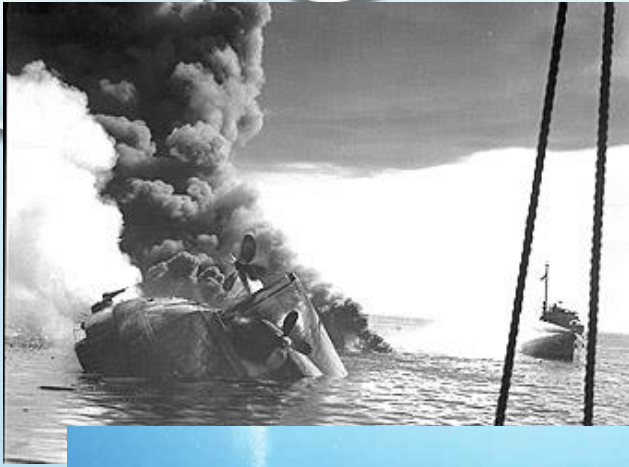
A major regional issue, priorities include:

- Disposal of used oil and WWII wrecks
- Marine plastic litter
- Pesticide contaminated sites (DDT, dieldrin) occur across the region
- Asbestos in building materials is a legacy historical waste
- E-waste is an emerging regional problem
- Medical waste including expired pharmaceuticals are a major problem
- Heavy metals in seafood



Used Oil Management

- Used oil drained from motor vehicles can be carcinogenic and is highly damaging to aquatic environments
- Disposal of waste oil is a significant issue in the Pacific region, with little regional management in place at present
- Only long-term disposal option is probably export for recycling (expensive, also needs CDL legislation and regulation)
- Use of used oil as a diesel extender for power generation is proposed as a short term disposal option (1-10 years)



Marine Oil

- 13 million tonnes of shipping sunk in the pacific in WWII
- Leaking bunker oil represents a significant environmental risk
- Leaking oil is highly toxic to marine life
- Highly detrimental to island tourism
- Bunker fuel will need to be removed from wrecks, very expensive





Marine Litter

A major regional issue



- Plastic can entangle marine life
- Plastic adsorbes pollutants from the water column
- Pollutants can be released when the plastic is ingested by wildlife or when the plastic weathers
- 80% of plastic is sourced from the land, improved waste and storm water management a critical management response



Pesticides (Insecticides and Herbicides)



- Herbicides are widely used across the Pacific in agricultural production
- Are toxic and are often carcinogenic
- No monitoring is currently carried out
- Contaminated sites are also present across the region
- Contaminated pesticide containers are also a problem
- Training and improved management are essential



Asbestos Containing Waste



- Found in old building materials
- Airborne fibres causes lung disease
- Needs to be removed from Pacific islands, particularly before it becomes a disaster waste
- Should be triple wrapped in plastic and buried in secure landfill with location recorded



Electrical & Electronic Waste (E-waste)

- Computers, mobile phones and electrical goods
- Heavy metals can be released into the environment if not managed correctly
- Usually will need to be shipped out and recycled in an environmentally sound manner
- Import tariffs required to help pay for this

Medical Waste



- Can contain toxic chemicals and wastes that are a biohazard (eg infectious wastes and body parts)
- Needs to be incinerated at over 1200°C
- This will minimise formation of dioxins and other toxic by-products
- Ash needs to be disposed of in secure landfill
- Important to separate out mercury thermometers and other chemicals

Heavy Metals



- Heavy metals released into the environment can be bioaccumulated and become toxic
- Mercury a particular Pacific problem as it is bioaccumulated in fish that are eaten
- Major sources include mercury released from hospital incinerators & from neon lights
- Lead contained in Lead-Acid batteries
- *Improved hospital waste and E-waste management*
- *Lead-acid battery recycling*



Best Practice Pacific Management

- Regional assessment (data collation)
- Interventions prioritized on a regional basis at the national level
- Best practice management interventions including stockpile removal
- Involvement of the private sector where possible
- Training and PPE
- Policy and legislation support
- Infrastructure sustainability (operating expenses, maintenance and replacement)
- This is the basis of the PacWaste Programme





Thanks For Listening!

GOING TROPPO CONSULTING

DAVID HAYNES

goingtroppo@y7mail.com

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