



**AN OPTION FOR  
WASTEWATER REUSE IN  
THE PACIFIC ISLANDS**

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# **THE PROBLEM (1)**

**Point source pollution from**

- (a) Households**
- (b) Sewerage systems**
- (c) Agricultural industry**
- (d) Other industry**

# **AFFECTING**

- (i) Subsurface and above surface water flow**
- (ii) Underground water resources**
- (iii) Still water resources**
- (iv) Estuarine and coastal waters**

## **THE PROBLEM (2)**

- **Expansion of plantation/ranching**
- **Reduced capacity for self sufficiency in foodstuff**
- **Dependency upon import of non-traditional foods**
- **Horticulture shaped by environment**

# **PROBLEM + PROBLEM = SOLUTION**

- **Reuse wastewater (effluent) for horticulture**
- **System designed to obviate drainage of waste water**
- **Revitalise horticultural sectors (home, small/large industry)**
- **Plan for production/location and catalyse transport/markets**
- **Release more water for human consumption**
- **Other solutions: Compost toilet**

# APPROACH IN QUEENSLAND

- **Linking with septic tank system**
- **Plants as waste dissipators**
- **Subterranean hermetically sealed system**
- **Competitive price with alternatives**
- **Choice of plant species to suit water availability**
- **Testing in various climates**

# Current technology failure



# Greywater Treatment



# **System design features**

- **Complies with Current Legislation**
- **Closed System**
- **Use of Existing Technology**
- **Easy Installation and Maintenance**
- **Reuse of Wastewater for the Householder's Benefit**
- **Biological Treatment of Wastewater**

# Site Preparation



# The Holding tank

- Pump
- Time Switch
- Alarm
- Low Water Feed
- Water Return Point
- Emergency Soakage Drain



# Inside the Holding Tank



# Emergency soakage drain



# The Pot Structure









# The finished product

