



Northern Group Rain Water Harvesting: A Case Study

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Ministry of Health/WHO



Minimum Water Service Standard

- 2005 Cyclone Percy
- 356 water tanks on 4 islands in 2 months
- 1.8 million liters of water storage
- 10,000 lineal meters of roof replaced
- 2.2 million budget

Lessons Learned

- Improved Water Quality
- Timeline
- Private-Public-Local Partnership: Trust
- Holistic-Roof, Tanks, Gutters
- Community Responsive
- Locally Run & Managed
- Measure & Value Contract
- Education & Maintenance
- Innovation

Improved Water Quality

- Roof Quality
- Gutter
- First Flush
- Maintenance





Timeline

- 2005 Cyclone Percy
- 2006 NZ & AU Funding
- 2006-2010: Central Government Planning



Timeline

- **2010: Public-Private Partnership**
- **December 2010: Local tender to Cook Islands/Northern Group companies RVK and Romani Designs Ltd**
- **October 2011: Boats in North**
- **October-December 2011: Simultaneous installation**
- **December 2011: Phase I Project completed**

Timeline

- December 2011-Current: Central Government Planning?

Public-Private-Local Partnership

- Public Sector
- Private Sector
- Local Community

Partners = Trust



Holistic: Roof, Gutters, Tank

- Criteria
- Color steel vs. aluminum roofing
- New gutters
- New tanks

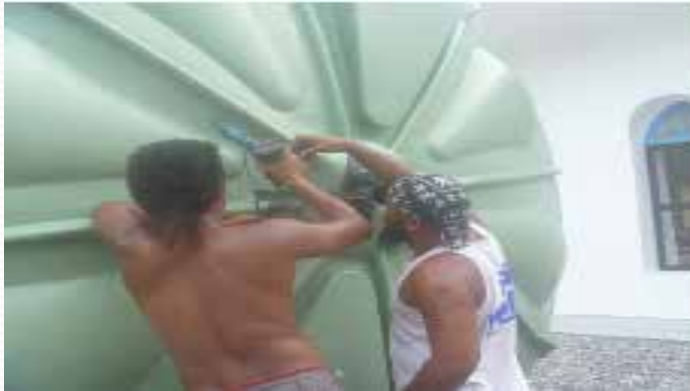


Community Responsive



- Island Councils & Chiefs
- Protocol
- Donation of surplus goods
- Water safety plans

Locally Run & Managed



- Local private contractors
- On-site supervisors
- Local labor
- Simultaneous installation



Measure & Value Contract

- New model
- Address transport challenges
- 15% Surplus held by contractor
- Adapting to diverse needs
- Training

Education & Maintenance

- WHO drinking water guidelines
- Public education & training
- First Flush
- Public Health Officers





Innovation

- **Public-Private-Local Partnership**
- **New tanks for Northern Group climate**
- **Burying tanks**
- **Bush mechanic: First flush**
- **Transport: Barge**
- **Pallet**
- **Simultaneous installation**

New Tanks



New Spouting



New Roofing



Nassau



Traditional thatched housing with new roof catchment, spouting and water tanks



What's Next: Community Tanks



Manako