

# IWRA's XVII WORLD WATER CONGRESS

제 17차 IWRA 세계물총회

29 November – 3 December 2021  
EXCO, Daegu, Republic of Korea



# Lessons from Water and Sanitation Policy Development in Pacific Island Countries

Ian White, Australian National University  
Tony Falkland, Island Hydrology Services



# Lessons from Pacific Island Countries





# Risks to Water Security in PICs out to 2030



- Increasing water demands and leakage
- Pollution of water sources
- Non-sustainable water extraction
- Poor water governance, and limited capacity
- Property rights disputes between land owners and governments,

Falkland, 2011



- Develop the general capacity of societies to cope with global change by building up its institutional structures and human resources, while
- Maintaining and enhancing the integrity of ecosystems on which they depend

Adapted from Barnett 2005

# Lessons Learnt in Policy Development in PICs

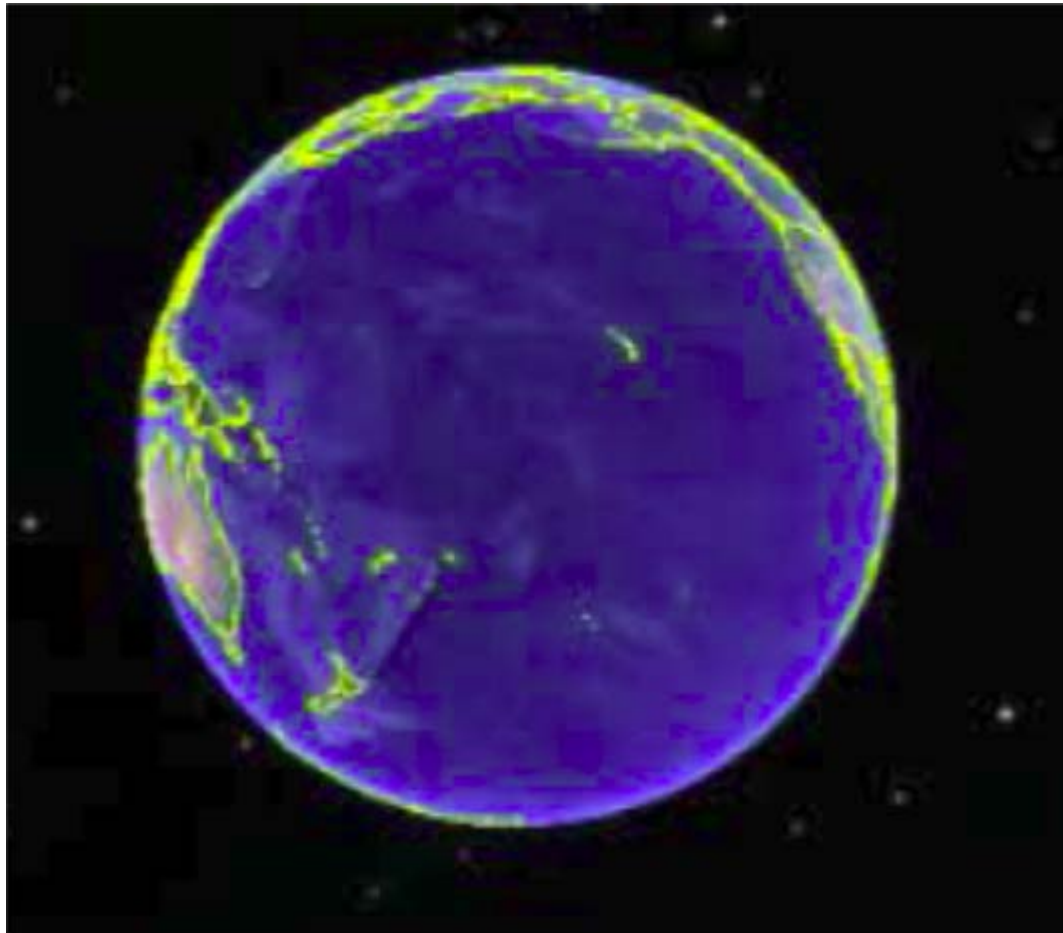


- Understand the Context
- Assess Assumptions
- Be Prepared to Listen
- Build on Strengths
- Use Clear and Appropriate Processes
- Invest in Capacity Building & Education



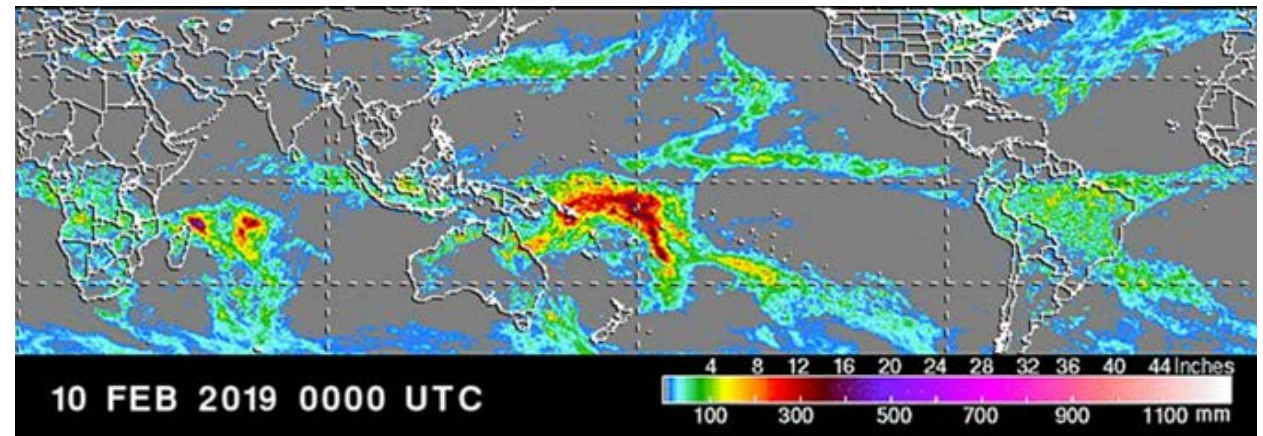


# Understand the Context



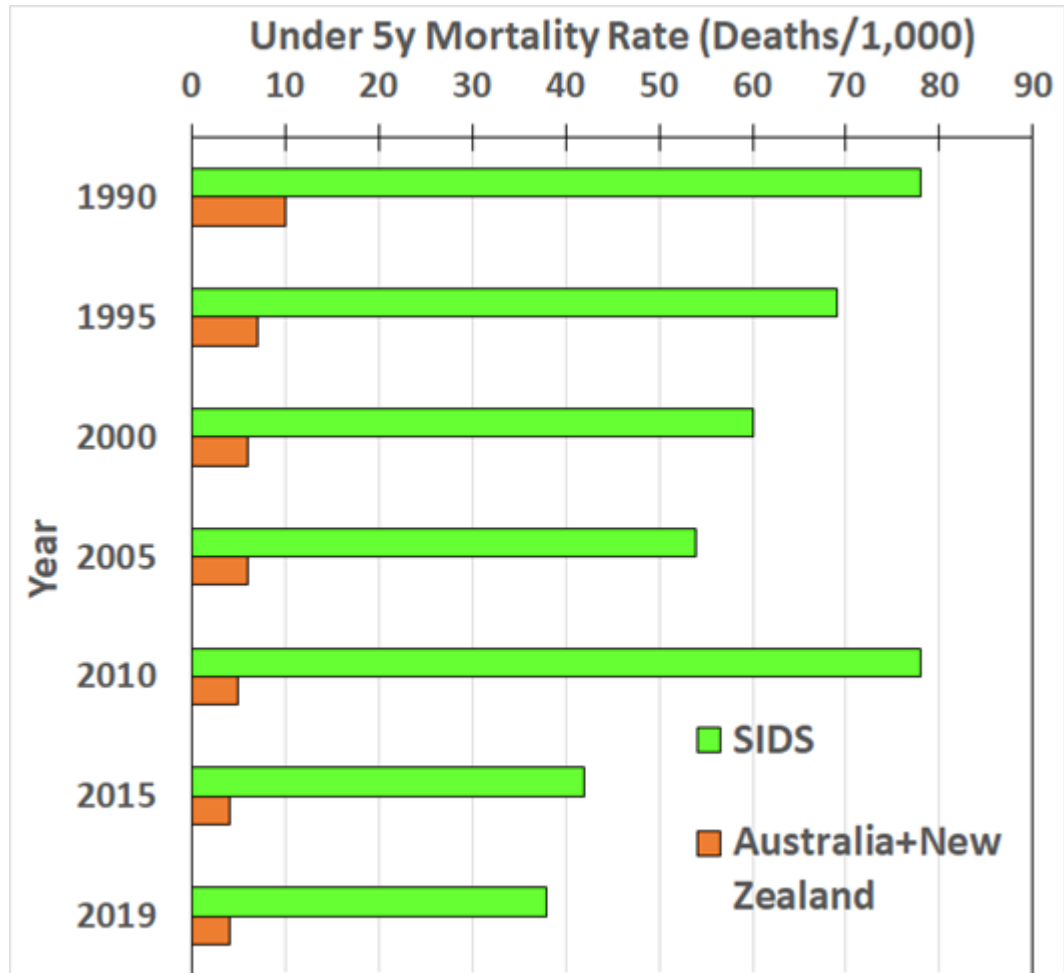
Google Earth

- Vast
- Very Dispersed
- Extremely Diverse
- Swept by Natural Disasters
- Complex Ocean-Atmosphere Exchanges
- Culture is Central



<https://pmm.nasa.gov/TRMM/realtime-3hr-7day-rainfall>

# Understand the Context



**Water & Sanitation are about life & death**

[Levels-and-trends-in-child-mortality-IGME-English\\_2020.pdf](#)



# Assess Assumptions



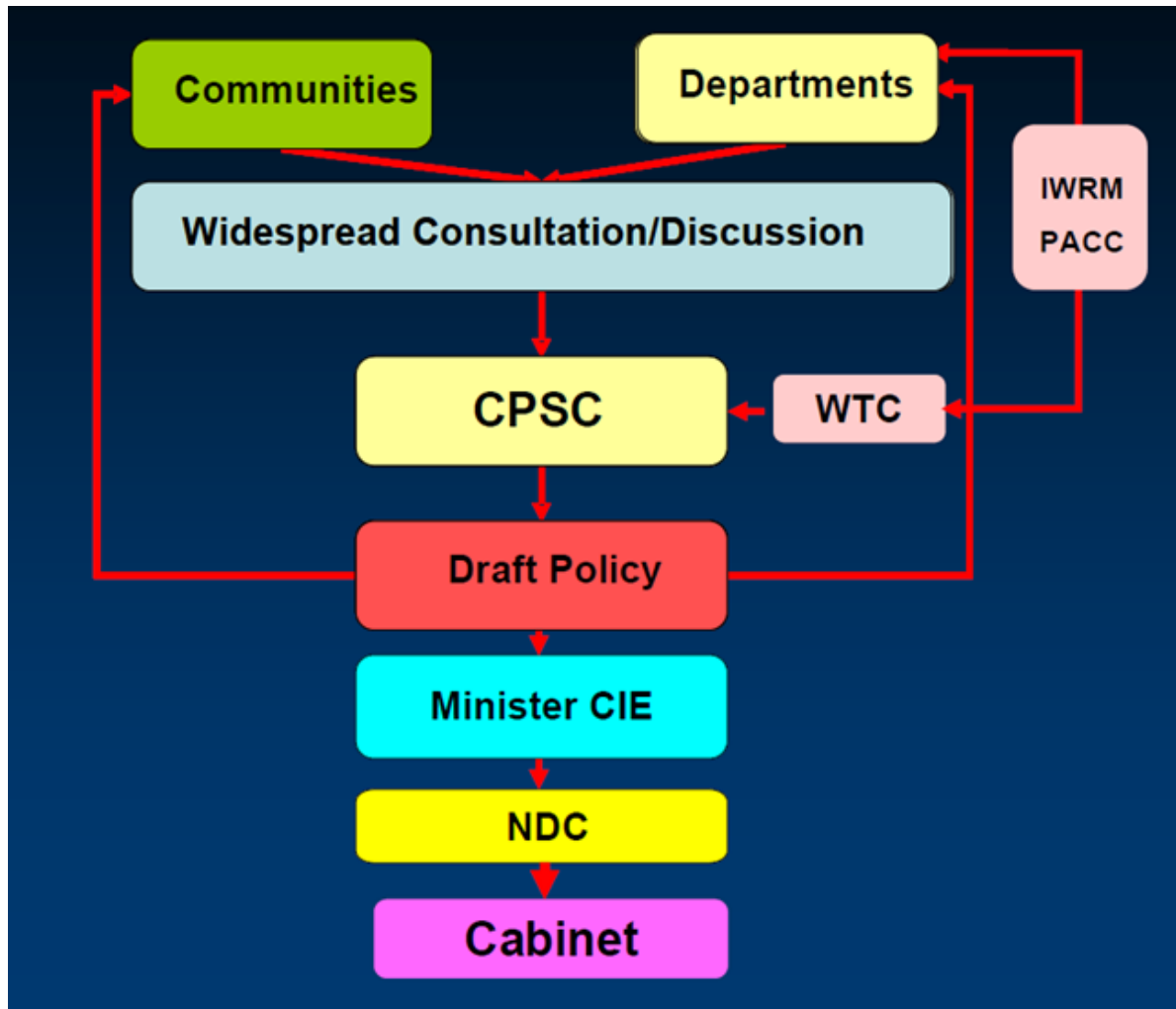
Althaus, Bridgman and Davis, The Australian Policy Handbook, 5<sup>th</sup> Ed. 2013

[The Australian Policy Handbook: A practical guide to the policy making \(routledge.com\)](http://routledge.com)

In some island countries, one person is responsible for policies on economic development, natural resources, and the environment

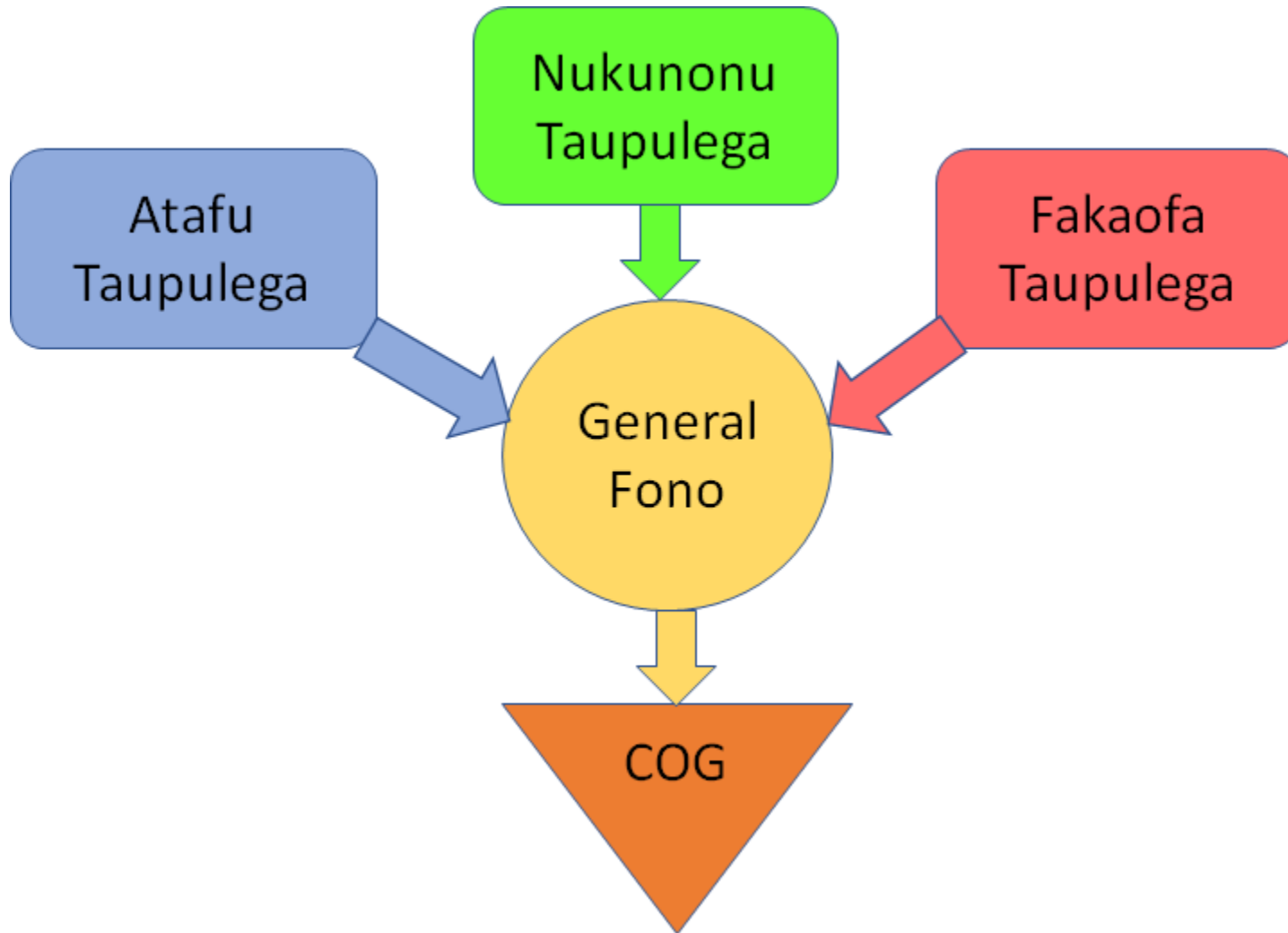


# Assess Assumptions



In some countries,  
policy-processes are  
not well defined

# Assess Assumptions



In some countries, local government is superior to national government



# Assess Assumptions



Some countries do not have a legal basis for regulating water



# Be Prepared to Listen



- Consultations

- Taupulega
- Fatupaepae
- Aumaga
- Health workers
- Teachers



# Be Prepared to Listen



- Leakage of concrete tanks & cisterns
- Emptying septic tanks
- Maintenance/training
- Building codes – concrete & septic tank construction
- Water safety –bottled water
- Emergency supplies of water
- Septic tanks impacts
- Droughts
- Data on rainfall, roof & tanks, water use
- Desalination



# Build on Local Strengths



- Well-developed local institutions
- Resilient social systems
- Sensitivity to environmental change
- High degree of equity
- Kinship-based, transnational networks
- Ability to indigenize modernity

Barnett (2005)

Pacific People have shown remarkable resilience: 1,000 -12,000 yr



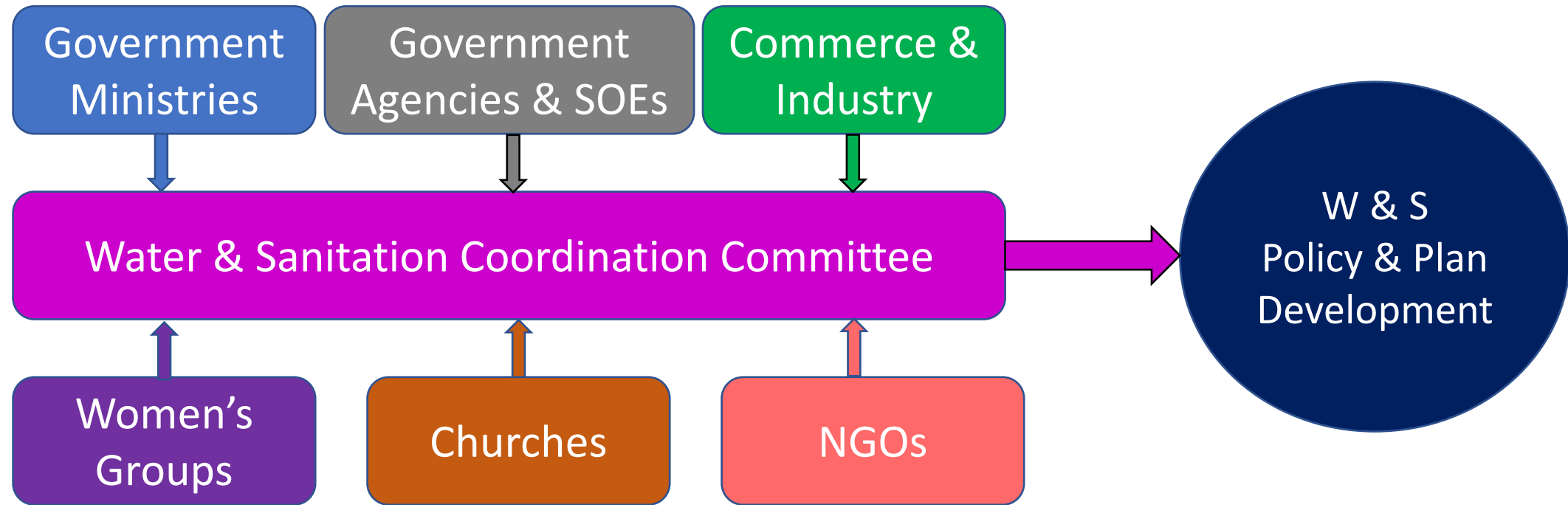
Inatia system of sharing fish Nukunonu, Tokelau

# Build on Local Strengths



## Strong Local Institutions and Resilient Social Systems

# Build on Local Strengths

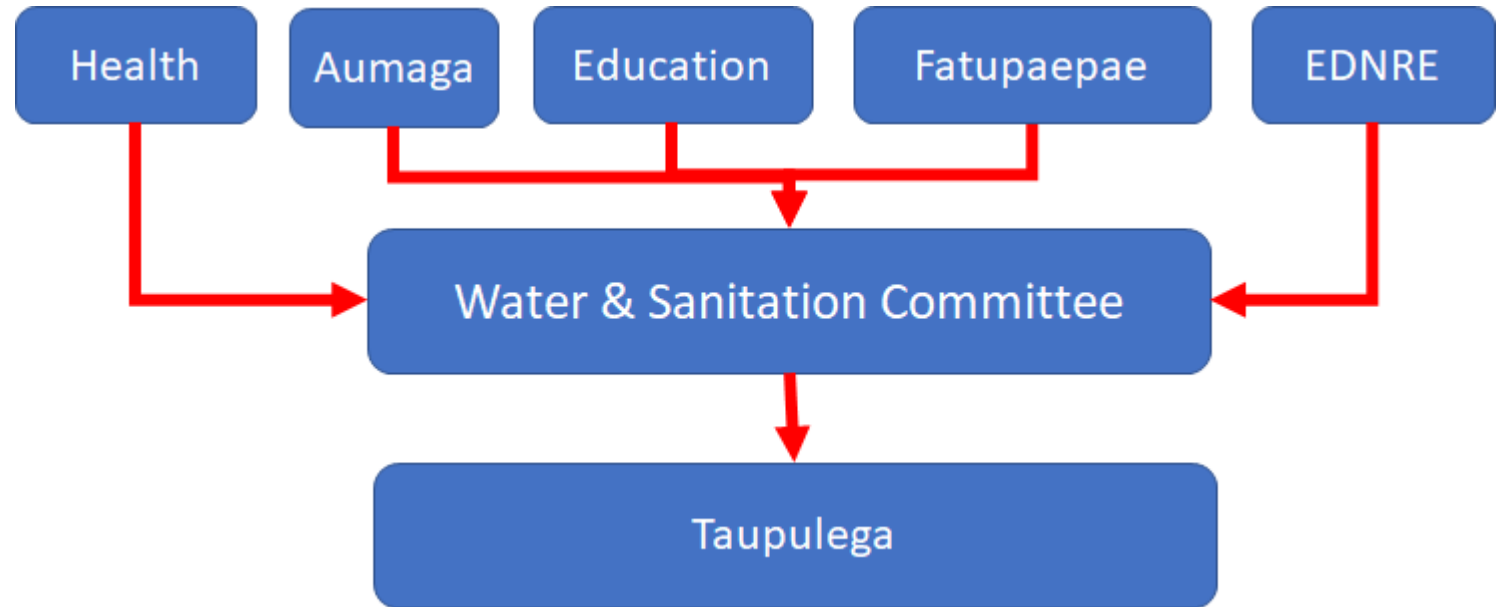




# Build on Local Strengths



Nukunonu Atoll , Tokelau, photo Tony Falkland



# Clear and Appropriate Processes



<b>Policy</b>	<ul style="list-style-type: none"><li>I. <b>Formulation of the Values &amp; Issues</b> – identify the common values and then the challenges &amp; opportunities</li><li>II. <b>Ends Planning</b> – identify policy goals, objectives and management ideals and the gaps between the planned end of the policy process and the current situation</li></ul>
<b>Implement Plan</b>	<ul style="list-style-type: none"><li>III. <b>Means Planning</b> – identify appropriate, realistic mechanisms &amp; activities to close the gaps</li><li>IV. <b>Resource Planning</b> – determine resources required to allow chosen mechanisms to be implemented</li><li>V. <b>Implementation and Control</b> - determine responsibilities and schedules for policy implementation and for monitoring and evaluation of policy outcomes</li></ul>

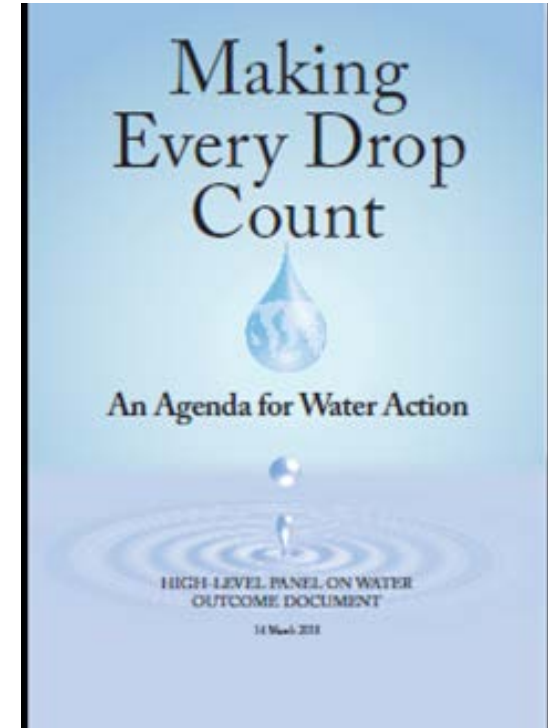
Adapted from Ackoff's 5-phase Adaptive Planning (1999)

# Clear and Appropriate Processes



- **Understand** water & sanitation
- **Value** water & sanitation
- **Manage** water & sanitation

Provide easily- understood Policy Goals



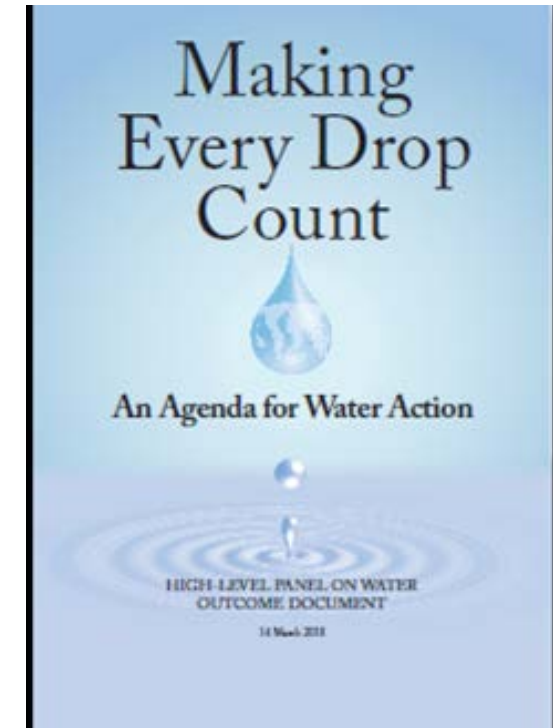
UN & World Bank High Level Panel on Water 2018



# Clear and Appropriate Processes



- **Understand water & sanitation**
  - Past & current rainfall?
  - Groundwater yields & quality?
  - Water use and storage?
  - Seasonal forecasts - droughts
  - Impacts of climate change?
  - Appropriate sanitation systems?
  - Ecological & health Impacts of sanitation systems?
- **Value water & sanitation**
  - Protect water sources
  - Conserve water
  - Invest in water and sanitation education/training
  - Building codes for water supply & sanitation systems
- **Manage water & sanitation**
  - Identify who is responsible
  - Provide adequate resources
  - Provide training
  - Invest in maintenance
  - Emergency preparedness & risk reduction
  - Review performance



UN & World Bank High  
Level Panel on Water 2018

# Invest in Capacity Building & Education



Mentoring is a vital

# Invest in Capacity Building & Education



These are the Future!!



# Invest in Capacity Building & Education



## Fakataliga o te Vai Ua

NA TUHIA E BY DR IAN WHITE • NA FAKALILIU E MIKA PERE

He afā motagi ua iluga o Fale, Fakaalo

Ko o tatou ola e fakalagolago ki te lava o te huavai. I na motu akau, ko ona tau fakapokepoke, e veia ko na afā ma na mugala, e mafai ke faigata ke maua te huavai. I na mugala matakutia i na aho kua teka, nae fakaaogā e ki tatou te vai tai vagana ai kafai e fai ma vai inu pe fai ai ni kuka. I te vaitaimi nei ko

ki tatou kua fakalagolago lahi ki te vai ua mo na mahini tamea, vai tukutua, ko na poloketi faugafale lalahi, ma na manu fafaga. E taugata te kaumai o na vai mai fafo. Hea nei he tatou faiga ke fakamautinoa ai e lava te huavai ke tali ai o tatou manakoga?

I Tokelau, e kahokehe na hihitemi e ki tatou fakaaogā ke fakatali ai te huavai ua e i na fale fakitali, kae e iei na vaega o tutuha ai.

### HE HIHITEMI FAKATALI HUAVAI UA

- He tuakaukau ke tali ai na vaega
- Pole vai ma na polpa toki ke taki ai te huavai
- He polpa fakatali i loto o te tane paku pe ko te tane hima kefai e tana
- Tane paku pe he tane hima mo te taliga o te huavai

### Na tuakaukau

Ko te tuakaukau e tana lahi mo te fakataliga o te huavai ua. Ko te tuakaukau e ato apa e lelei atu ia. Ko te lahi o te tuakaukau, ko te lahi foki ia o te huavai e mafai ke fakatali. Ko he taki lelei te fakamautinoa e fakaaoga katoa te avanoa i te tuakaukau ke he afāina ai o tatou nuku i na mugala.

Ko na lakau e falala ma fakalavelave ki luga o na fale e fakatali he lahi ai te ua e mafai ke toki luga o te tuakaukau. E mafai foki te tuakaukau ke fanaifo ai na lautau ma poloka ai na palevai ma fanaifo ai lava ki na tane paku ma na tane hima. Ko te otaota foki a na manu lolo, e fakakino ai te huavai.

25

# Lessons Learnt in Policy Development in PICs



- Understand the Context
- Assess Assumptions
- Be Prepared to Listen
- Build on Strengths
- Use Clear and Appropriate Processes
- Invest in Capacity Building & Education



# Acknowledgements



Thanks to our many Pacific colleagues, both present and alas passed

