



SOPAC



Establishing a Regional Indicator Framework and Finalising the Project Indicator Framework

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***IMPLEMENTING SUSTAINABLE WATER RESOURCES AND
WASTEWATER MANAGEMENT IN PACIFIC ISLAND COUNTRIES***



Project Document Requirements

- **A suite of “comprehensive baseline and target indicators and sources of verification for both outcome and output levels during project implementation”. It was anticipated that these would “form the basis on which the project's Monitoring and Evaluation (M&E) system [would] be built”**
- **Component 2 – IWRM and environmental stress indicators developed and monitored through national and regional M&E systems to improve IWRM and WUE planning and programming and provide national and global environmental benefits**



Project Indicator Framework

- **Need for change**
 - Projects originally developed about three years ago
 - Changes made to all project logframes and outputs
 - Appropriate to review indicators and targets
 - Supporting work undertaken by other agencies [e.g. NZAID and the EU in the Muri Lagoon catchment in Cook Islands]
 - Separation of roles with the GEF Pacific Adaptation to Climate Change (PACC) [separation of composting toilets and septic rehabilitation in Tuvalu]
 - Opportunities arisen for catalytic work [such as the synergies with the groundwater assessment work of HYCOS in Nauru]



Project Indicator Framework

- Way Forward
 - RTAG to oversee the project M&E framework
 - Input sought from Project Managers on details of outputs (area protected, numbers of toilets, area of aquifers and numbers of users)
 - Revised framework put back to Steering Committee out of session



Regional Indicator Framework

- Challenge of getting science to drive policy
- Generally policy needs drive reporting, typically driven by socio-economic drivers and socio-economic and environmental risk management
- What are the questions?
 - What matters? (policy question of values)
 - What changes matter?
 - Are things changing/not changing in the right way?
 - Are we making the right difference?
 - Could we do better?



Gender ratios;
Biodiversity;
MDGs

Water quality % criteria;
Participant/ gender ratios;
Biodiversity;
MDGs;
Policy implementation

Global Reporting

Regional Reporting

Water quality % criteria;
Participant/ gender ratios;
Biodiversity;
MDGs;
Policy implementation

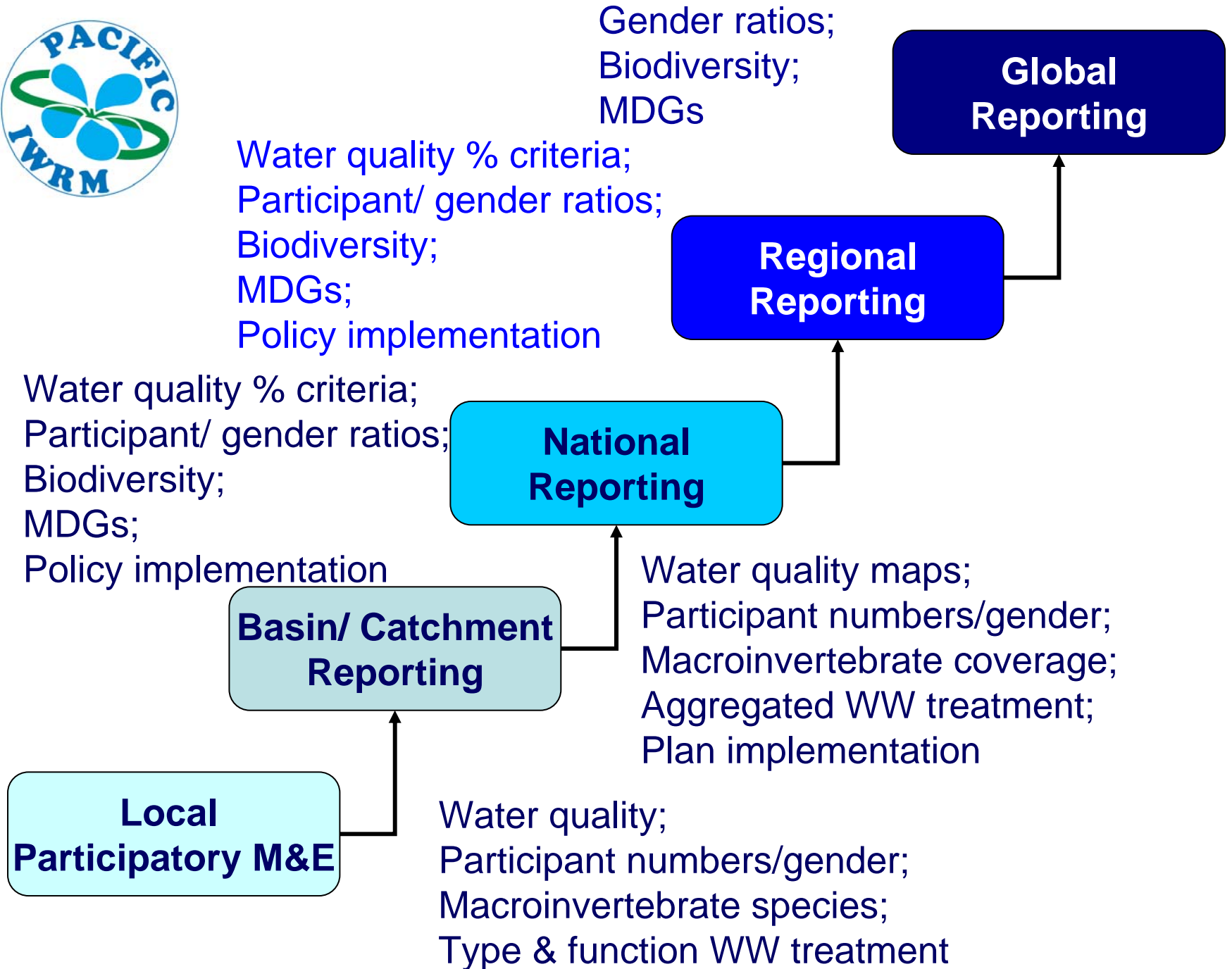
National Reporting

Basin/ Catchment Reporting

Water quality maps;
Participant numbers/gender;
Macroinvertebrate coverage;
Aggregated WW treatment;
Plan implementation

Local Participatory M&E

Water quality;
Participant numbers/gender;
Macroinvertebrate species;
Type & function WW treatment







Other Regional Indicator Processes

- Asian Development Bank (ADB) – Asia Water Development Outlook (AWDO)
- UNEP Pacific Water Vulnerability to Environmental Change
- UNEP/SPREP Pacific Environment and Climate Change Outlook (PECCO)



Asian Water Development Outlook

- Composite Index



Indicators



Household Services

- Improved sanitation
- Improved drinking water



Productivity

- Agricultural
- Industrial
- Ecological flows



Urban Stress

- Improved sanitation
- Improved drinking water



Disaster Management

- Hard capacity
- Soft Capacity



Ecological Health

- Water Quality
- Ecosystem Status



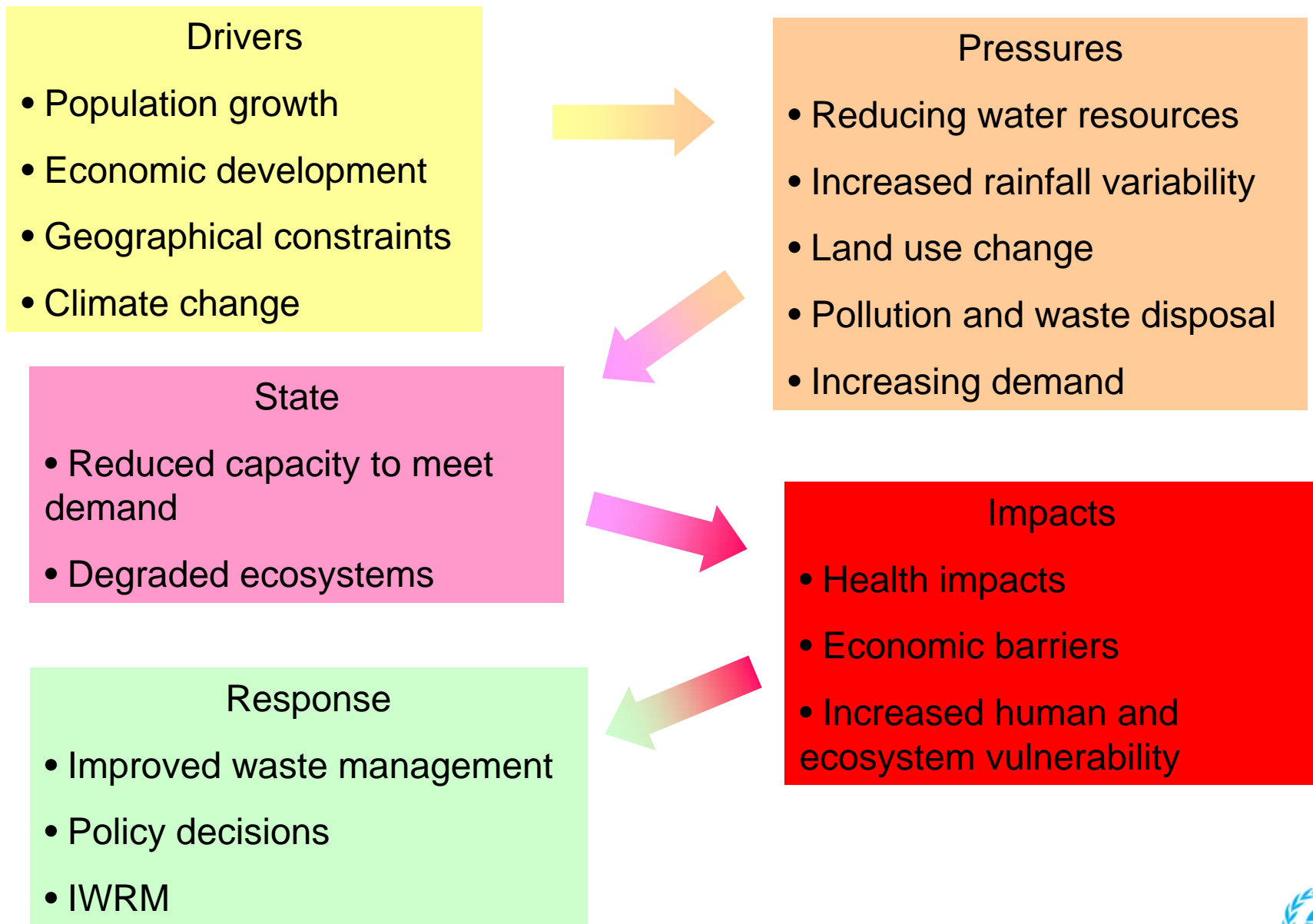
Asian Water Development Outlook

- Composite Index
- Largely Environmental and Socio-economic status based
- Reliant on published information – some of which is 10 years old
- Very limited data for Pacific – possibly only two countries with Composite Index
- Proxy indicators with poor linkages to some outcomes
- Plans for 2013 AWDO
- Currently at final review stage



Pacific Water Vulnerability to Environmental Change

- Based on UNEP Methodology Guidelines – Vulnerability Assessment of Freshwater Resource to Environmental Change
- Designed for river basins – being adapted for Pacific
- Combination of status, stress reduction and process indicators
- Combines numeric data with expert assessment



Indicators



Resource Stress

- Water Availability
- Rainfall Variation



Development Pressure

- Water Exploitation
- Drinking Water Supply



Ecological Health

- Water Pollution
- Ecosystem Deterioration



Management Capacity

- Water Use Efficiency
- Wastewater Management
- Conflict Management



Pacificisation

- Choice of countries?
 - Representative combination of island and atolls
 - Data availability
 - Cook Is, Fiji, Nauru/Niue, RMI, Samoa, Tuvalu
- Catchments, islands or countries?
- Choice of islands?
- Consultation with countries and experts
- Relevance of methodology
- Relevance of Index
- Weightings?

Country	Resource Stress		Develop. Pressure		Environment Health		Management Capacity			Total
Parameter	RS _s	RS _v	DP _s	DP _d	EH _p	EH _e	MC _e	MC _s	MC _c	
Cook Islands	-	0.6	0.2	-	-	0.4	-	-	0.6	0.21
Fiji	-	1.0	-	0.53	-	0.5	-	0.29	0.5	0.32
Nauru	1.0	1.0	1.0	0.1	1.0	0.5	-	0.3	0.5	0.65
RMI	0.97	0.51	0.38	0.17	0.79	0.98	-	0.07	0.6	0.53
Tuvalu	1.0	1.0	1.0	0.1	1.0	0.8	-	0.1	0.6	0.67

Comparison:

5 NE Asia Basins 0.29 – 0.53; Mekong 0.31; 3 South Asia Basins 0.45 – 0.64



PECCO

- Regional integrated environmental assessment (IEA)
- Outputs from the PECCO will inform 5th UNEP Global Environment Outlook (GEO5) – due 2012
- High-level process
- SOPAC to develop water chapter
- Collation and interpretation of existing data – often integrated data and indices, rather than raw data
- Recently commenced – due for completion Dec 2010



Indicator Framework

- Project Documents outline status / stress reduction / process indicators
- High level indicators (AWDO / PWVA / PECCO) focus on status and some stress reduction
- Process indicators need to be incorporated
- Indicator timelines



0

10years

20

30+

Process



**Stress
Reduction**



Status





Expectations (values)

- **Socio-economic status**
 - Access to improved drinking water source
 - Access to improved sanitation
 - Ratio of rural to urban supply (%)
 - Equity
- **Ecological status**
 - Water flows and quality
 - Macroinvertebrate community structure
 - Fish populations
 - Habitat
- **Requires consultation**
- **What changes to status matters?**



Early Indicators of Change

- Stress reduction
 - Reduction in wastewater discharges
 - Native vegetation coverage
- Water Use Efficiency
 - % of available water extracted
 - % of captured and/or treated water reaching households
 - \$ value of volume use



Appropriate Process

- Catalytic indicators
 - Leveraged co-funding
 - Legislation changes
- Governance
 - Transparency of decisions
 - Devolution of decision-making
 - Gender balance / Engagement of vulnerable stakeholders in decision-making process



Project Indicator Principles

- Participation
- Negotiation
- Learning
- Flexibility
- Stakeholder Involvement

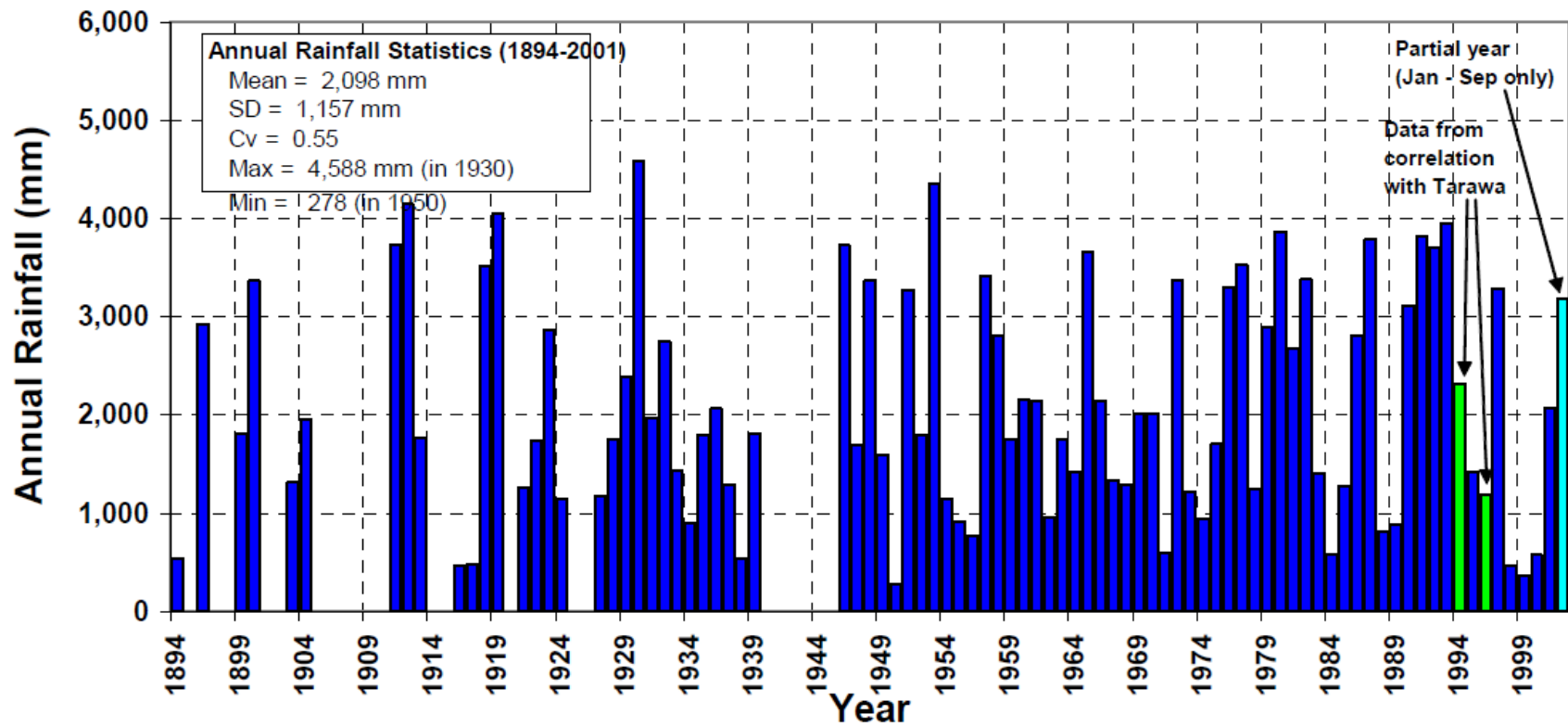


Pacific Status

- Often very limited existing data – lack of reporting even against MDG targets
- Systems dependent upon biophysical factors (eg. climate, ecology or people) likely to have high background variability
- Identify data requirements to provide confidence that a change can be identified
- Costs will be a significant factor in collecting baseline data, and therefore defining indicators
- Resources are limited – thought to value for additional funding
- Locations are often remote



Nauru Annual Rainfall 1894 -2001





How would it work?

- Aggregated reviews from local/project level
- Indicators appropriate at local and national level
- Regionally able to report on country and region either on proportion of countries/ population
- Adaptable framework to incorporate relevant indicators
- Presentation styles can be adapted to accommodate target audiences
- Need to incorporate status, stress reduction and process indicators
- Intuitive



Status

Stress

Process

Very Low

**Degraded /
Undeveloped**

Uncontrolled

**No systems /
Governance**

Low



Moderate

**Impacted
Urban / Rural**

Controlled

**Systems /
Governance**

High



**Very
High**

**Protected
High for All**

**Reduced /
Removed**

**Implemented /
Regulated /
Transparent**



Where to from here?

- RTAG to take this forward
- Develop for endorsement by RSC
- Iterative process
- Ultimately framework valued by countries, used regionally and globally