

**SPREP**

*South Pacific Regional  
Environment Programme*



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# Pacific WSSD Regional Assessment

**Summary of Key Points from Synopsis, 2001  
& National Assessment Reports, 2002**

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## 1. Introduction

This Summary document has been produced as a means to relay key national issues/messages regarding sustainable development to:

- Assist in ensuring national based messages are conveyed in the regional assessment document and deliberations for WSSD at the regional and international level;
- Provide the stimulus for countries to finalise their National Assessment Reports (NARs)

It includes points from:

- the WSSD Pacific Region Review Synopsis document of July 2001 [prepared for the Apia Multi-stakeholder meeting – and shown in grey-scale],
- National Assessment Reports made available to SPREP in draft or preliminary form, as well as
- key messages from National NGO/Civil Society Multi-stakeholder meetings [organized by PCRC – Fiji].

It is inclusive of recent NAR drafts by Kiribati and Tuvalu made available to the author during country visits over the last month. It does not include the full array of National NGO stakeholder meeting reports now available from PCRC as they were not accessible at the time of writing.

SPREP has endeavoured to place on the WSSD website the NARs as they become formally available ( [www.pacificwssd.org](http://www.pacificwssd.org) ), however many drafts made discreetly available for review are pending formal deliberation at the National level including consideration by Cabinet. As there status is formalised at the National level, SPREP will seek permission for them to be placed on the web-site.

The Synopsis document of 2001, was generated having regard to key reporting from regional and national levels - for CSD, UNGASS, Environment and Economic Ministers Meeting - Japan 2000, and the Pacific Island Environment Outlook 1999. The summary points of this document shown in background grey-scale here in this document will therefore relay prior reporting issues so that Nationals can associate/assimilate prior concerns with current reporting for WSSD.

In later drafting of the summary document the PICs that raised matters have been identified. This is to demonstrate that in some areas issues are consistent across the region, and to counter claims that argument for the need to address certain issues is myopic. The identification is not exhaustive as earlier review and documentation did not go to this level of detail.

Where comments from National NGO/Civil Society Multi-stake meeting reports have been used "NGO" is shown afterwards.

The summary document includes observations from reporting to the 4 July 2002. If time permits review of more recent reports will be incorporated. The priority for this will be directed from feedback to this version. It may be of more benefit for efforts of the Secretariat to be directed towards the draft version of the Regional Assessment in copy form for delegations attending the WSSD.

The Chapters are consistent with the structure of the Barbados Programme of Action and the reporting for the Environment and Economic Ministers Meeting in Japan, 2000. The Table of Contents has been hyperlinked to assist with quick reference to areas of interest.

## 2. Socio-Economic Dimensions & Frameworks for Sustainable Development

- Economic Insecurity of Pacific States
  - small, isolated islands with limited natural and human resource bases
- Globalisation- good or bad?
  - impacts on PIC trade, governance, and exposure to risk
- Population growth and migration
  - urbanisation, internal migration and emigration
- Emerging issues:
  - Poor or inadequate planning systems
  - Lack of resource information on which to base decision support systems

### General – Sustainable Development Constraints

#### *Socio-Economic (Fiji)*

- Resource Constraints
  - Lack of financial resources both nationally and internationally
  - Shortage of technical expertise
- Violation of human rights
- Land Issue
- Sectoral approach still more prevalent rather than coordination to strengthen integrated approach
- Ministries are too territorial
- Geographical isolation for rural areas
- Infrastructural problems
- Donor driven policies undermine national confidence: Neo-colonialism
- Lack of transparency and accountability lead to corruption with the government and other organisations
- Political instability
- Lack of awareness of International/Regional conventions
- Lack of coordination and cooperation between line ministries/NGO's/Private Sector/rural communities
- Culture and tradition – needs to find the balance with modern values
- Contradictions between traditional customary law and statutory law
- Lack of macro economic policies promoting sustainable development: incentives, subsidies, and others.....
- Lack of dissemination of information
- Unequal distribution of development
- Sustainable development is not treated as a priority in Government
- Lack of Political will
- Lack of monitoring and analysis on effects of actions
- Absence and lack of participation of women, youth, underrepresented bodies, disabled groups in the national/provincial/community/village decision-making process
- Use of developing countries such as Fiji as dumping grounds for developed countries
- Lack of effective legislations and expertise to monitor and control services and importation of unsafe products
- Climate Change
- Natural Disasters

- Urbanisation and Resettlement

### Needs

- Sustainable development: requires comprehensive [national] environmental frameworks to underpin economic development (Kiribati);
- Economic instruments (subsidies, levies, taxes, bonds, trust funds) to promote environmentally friendly development and control unsustainable practises
- Partnering in-country and national-regional required.
- Support for National Sustainable Development Strategies required, **or**
- Strategic Development Plans to be improved to recognize the environment pillar ie balance of economics, social-cultural and environment spheres.
- Overall development vision incorporating the environment to be developed at national level (Tonga)
- Need to forward the argument (and awareness) that PICs are all absolutely and directly reliant on their natural resources and systems that accommodate them.
- Need to recognize the cyclical relationships of climate change, land degradation (eg coastal and soil erosion), status of reefs, pollution, loss of pollution (Tuvalu, Kiribati, RMI Niue)
- Lack of natural resource data and characterization for effective decision making & management (Niue)
- Need to amalgamate environmental unit (Community Affairs) and environmental planning office (Lands) to ensure synergy between environmental management and land management – consistent with NEMs (Niue)

### Sustainable Economic Development

- Poor access to credit by individuals, families and customary groups
- Pressures on farmers to intensify agriculture and Land use
- Need to improve access to credit,
- pressures on farmers to intensify land use for economic returns to balance increasing costs, or to contend with other socio-economic drivers (eg land tenure) - Tonga.
- Implication of poor water management (water availability, water quality) and sanitation on economic status/opportunities.
- High cost of reliance on diesel fuel to generate energy.
- No land use and building codes in existence to guide sustainable development (Palau, RMI)

### Governance

- Governance: need to monitor and evaluate Govt/NGO efforts to build on lessons (Kiribati, Tonga)
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### Human Resource Development

- HRD: Skills development in Environmental planning, assessment, monitoring and sciences: with specific skills development in biodiversity, climate change, infrastructure planning & management, energy planning and evaluation, data collection & management, policy analysis for Multi-lateral Environmental Agreement/Multi-lateral Social Agreements (MEA/MSA) commitments.(Tonga).

### Population

- High population growth and density: massive stress on natural resources- planning systems required (Kiribati NA, RMI)
- Key environmental and sustainable development driver is population: growth, density, settlement and uncontrolled land use (Tonga, RMI).
- Urbanisation rates (internal migration from Outer Islands & natural growth) diminishing ability to supply essential services & reducing natural resources critical to lifestyle maintenance
- Urbanisation
  - mode of urbanisation breeds poverty and affecting village life

- relook at education system to support decentralization and rural economic activity
- Rural development
  - Resource and wealth distribution
  - Infrastructure development (electricity, water, health education)
  - multi-disciplinary approach rather than sectoral approach
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- Planning systems required to bring in coordination of land development (Kiribati, Tuvalu , Tonga)
- Uncontrolled Settlement location and rates of development (Tonga, RMI)
  - Land use and entitlement issues (Tonga)
  - Land use encroachment into sensitive or hazardous areas – eg loss of mangroves, housing on flooded areas (Tonga)

### **Health**

- Limited extension to remote areas (Cook Islands, Tonga, Kiribati, RMI Tuvalu)
- Problems from poor waste management practices (Tuvalu, Niue, Kiribati, RMI, Tonga)
- Poor quality water supply from waste & contamination
- Need for primary health care for all of population (Outer islands) (Tonga, RMI, Kiribati, Tuvalu)
- Free range domestic animals (Tonga)
- Quality of groundwater (Niue) – threats: salt-water intrusion, fertilizer use, pesticide use, leaching from waste, contamination from uses about bores, effluent disposal (Tuvalu)
- Poor advancement of traditional medicines (Niue)
- Spread of HIV/Aids

### **Trade**

- Need to tackle level and type of imports (Substitution) (Tonga)
- Dominance of FDI literature and advocacy – without addressing enabling environments required for local investment and development.
- Impact of Trade liberalisation and globalisation on IPR (TRIPS) and traditional means of natural resource use (Fiji, NGO)
  - need to document and protect TK (via legislation, etc.)
  - membership with WTO hindrance to protecting IPR
- Genetic Engineering (GMO) [Fiji, NGO]
  - has potential to destroying biodiversity and
  - control movement of GMO products from overseas
  - control food standards
  - human genome patenting
- International trafficking
  - Women and children
  - Drugs
  - Money laundering
  - Pornography

### **Culture and Traditions**

- Building blocks for SD exist through cultural practices – people orientated.(Solomon Islands)

## Chapter 8 Agenda 21

*8.7. Governments, in cooperation, where appropriate, with international organizations, should adopt a national strategy for sustainable development based on, inter alia, the implementation of decisions taken at the Conference, particularly in respect of Agenda 21. This strategy should build upon and harmonize the various sectoral economic, social and environmental policies and plans that are operating in the country. The experience gained through existing planning exercises such as national reports for the Conference, national conservation strategies and environment action plans should be fully used and incorporated into a country-driven sustainable development strategy. Its goals should be to ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations. It should be developed through the widest possible participation. It should be based on a thorough assessment of the current situation and initiatives.*



### 3. Climate Change

PICs are highly susceptible to climate change due to the low elevation, concentration of population and infrastructure in coastal areas and poorly developed planning systems.

- Global warming and sea-level rise will have many social and environmental effects such as flooding of many urban areas, increase in natural disasters, disruption of agricultural activities and decreasing the resilience of forests
- Mitigation methods that should be further developed include:
  - strengthening planning systems,
  - improving meteorological capacities
  - conducting vulnerability assessments
  - improving public awareness
  - improvements/expansion of research efforts to better understand climate change

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*“All expected impacts from Climate Change are exacerbated by poor environmental practices”*  
Tuvalu draft National Assessment.

- **Constraints**
- Unreliable ongoing resourcing at the national level (Kiribati).
- Stability of programmes need to be assessed prior to design & inception (Kiribati)
- Lack of awareness of community and government of environmental and economic implications of Climate Change
- Impacts of climate change include sea level rise and associated coastal erosion, effects of coral bleaching to economic and natural environments, and extreme events such as storms and frequent drought. (Palau)
- Programmes should be designed from multi-sector viewpoint ie addressing of coastal erosion, environmental threats, current climatic implications (hazards), coastal resource management, infrastructure management – inclusive of potential effects of Climate Change.(Kiribati, RMI)
- Lack of data for decision-making.
- Lack of planning systems to provide the coordination and integration of Climate change & SLR adaptation measures (Tonga, Samoa, RMI).
- Lack of practical work on climate change at national level: research, data, adaptation options:- suggested action areas: damage to reefs & economic implication; affects on freshwater lens, affects on crops and fisheries, affects on control of vector borne diseases.
- **Needs**
  - Increase in awareness programmes (Kiribati)
  - Better environment and coastal processes information (Kiribati).
  - The identification of cost-effective and adaptive management approaches and national disaster response strategies. (Tonga, Samoa, Fiji, Kiribati)
  - Longer term and multi sector design and implementation of programmes
  - Targeted information for economic / finance Ministers (Nadi 17 May 2002). Case study inclusive of Adaptation, risk assessment, economic valuation, coastal processes and planning called for by Tongan delegation

## 4. Natural and Environmental Disasters

PICs are highly vulnerable to natural disasters including earthquakes, tsunamis, volcanoes and storms and to threats from human activities including inadequate storage and transportation of oil and other hazardous substances on sea and land.

- Vulnerability is further increased because of
  - lack of information on hazards,
  - lack of systems, regulations and plans dealing with hazards and natural disasters
- Need for accurate and timely predictions, rapid emergency response, improved land-use and coastal zone planning
- Activities required include:
  - improved national disaster plans,
  - improvements in capacities to respond
  - the development of oil spill response plans

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### Constraints

- Poor management of chemicals at schools (chemistry labs) (Tonga)
- Poor availability of technical expertise /equipment for hazards – fires, oil spillage, chemistry and gas leaks/explosions/fires (Tonga)
- Limited long term funding
- Poor awareness of dangers of chemicals & poor storage
- Absence of any occupational health and safety guides (Tonga)
- Availability of cost-efficient disaster management technology – spills, fires, chemicals
- Increased costs of disasters countered by limited resources (\$) to address threats strategically

## 5. Management of Wastes

Problems include:

- Increase in production of non-biodegradable and solid wastes
- Lack of controls on import of chemicals
- Contamination of groundwater, freshwater and the marine environment
- Insufficient promotion of good waste management practices
- Transport of nuclear and other hazardous wastes across the Pacific
- Introduction of marine species
- Management of oil spills
- Pollution from dredging, sand extraction and sea-bed mining

Need to:

- develop demonstration projects which promote technical transfer
- develop alternatives to current disposal patterns,
- raise awareness
- develop appropriate legislation

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### Constraints:

- Population growth and massive urbanization in small atoll countries
- Limited land for disposal options, small atolls (& Tonga).
- Limited technology, equipment and materials (soils /cover materials etc) to assist in disposal
- Lack of methods and frameworks to deal with uncontrolled waste disposal;
- Radio-active dumping close to Kiribati
- Old borrow pits (WWII) in small atolls attracting dumping & consequential health problems (Tuvalu)
- Poor consistent resourcing in waste management projects
- Lack of data on collection methods, choices in disposal on small atolls and cost efficiency of choices
- Poor consistent data collection methods ( Tuvalu, Kiribati, )
- Low knowledge base of community of pitfalls of poor waste management [health, economics, marine resources, tourism] (Tuvalu, Kiribati, Tonga)
- Lack of consideration of other environment/socio-economic pressures in waste programmes
- Poor legislation / legal instruments to control waste or activities with high waste generation rates (Kiribati, Tuvalu, RMI, Tonga)
- Increase in 'dirty' industries and commerce in small atolls eg manufacturing (Tuvalu, Kiribati)
- Lack of land use / resource use planning systems (Tuvalu) to cater for site selection & control uses/activities in close proximity to dumps, or control new uses/activities to ensure reduced waste production.
- Regional level: Poor communication and bureaucracy (national-regional – international linkages.)
- Lack of human resource management in waste (Tonga)
- Poor NGO involvement in Waste management (Tonga)
- Storage of fuels and disposal options for waste fuel and oils

**Needs**

- Increase resources at the national level
- Increased resources for nurturing awareness in government and community
- Expand research to national level to specialize in national options for disposal and management of wastes
- Need policy for the protection of ambient air quality as well as supportive legislation framework to control emissions (Samoa)
- Expand legislation / legal instruments to manage wastes and reduce at the source (Kiribati – Environmental Act)
- Efficient recycling processes
- Increased role of NGOs and Civil society in waste awareness and management

## 6. Coastal and Marine Resources

- Support development of aquaculture
- Respect local resource management systems
- Develop effective vessel registration and monitoring system for offshore fisheries
- Improve community based conservation and management for inshore resources along with implementation of the Pacific Coral Reef Action Plan and ICRI
- Develop coastal models for coastal management suited to the Pacific
- Train local fishermen on sustainable use of coastal and marine resources
- Improve acquisition of baseline and monitoring data

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- Constraints for sustainable Fisheries management:-
    - Massive population growth & urbanization (Kiribati)
    - High percentage of 'open access' to the resource
    - Limited scientific and management data (Kiribati, RMI, Tonga)
    - Limited suitable / contemporary laws (Kiribati, Tonga)
    - Limited awareness of community and government on status (Kiribati, Tonga,
    - Limited funds for national based research (Niue, Tonga, RMI, Solomon Islands)
    - Unsustainable use of inshore fish resources (Niue – lack of research, monitoring & surveillance capability.
    - Lack of coordinated policy, and determining body to ensure better integration of effort.
    - Lack of baseline information (Niue)
    - Lack of ability to monitor EEZs
  - Constraints to coastal and marine resources
    - Sand mining
    - Limestone quarries (run-off)
    - Decreased traditional management
    - Poor institutional and control mechanisms
    - Fragmented management – lack of coordination.
    - Too many laws governing coastal resources
    - Poor awareness of need for better coastal management
    - Limited long term resources
    - Limited technical expertise & equipment
    - Lack of baseline information (Niue)
    - Pollution from land based sources & yachts (Niue)
    - Lack of legislative provision for marine conservation areas (Niue)
  - Needs for improved sustainable development:
    - Increase awareness
    - Promotion of community based and participatory management (Kiribati, RMI, Tonga & Solomon Islands)
    - Replication of marine protected areas using the concept of bio-regional planning.
    - Strengthen and revitalize tradition management regimes, supported by science and precautionary approaches.
    - Include marine stock enhancement programs at the national level
    - Increased promotion and training in consistent methods & procedures for data collection
    - Expand, enhance or create better environmental and resource management laws
    - Extension and outreach programmes

## 7. Freshwater Resources

The poor supply and quality of freshwater resources is a problem in many PICs

- Conservation and management of groundwater and collection and storage of rainwater are critical to sustaining human settlement
- Problems include lack of technical equipment, trained technicians, logging of catchments and a lack of catchment data, knowledge of freshwater sources and inadequate monitoring of the quality and supply of fresh water resources

Need to improve sustainability of water supply and usage by:

- improve water quality assessment
- develop national water profiles to allow donors to identify priority areas
- establish a regional database for all water and sanitation information and available training and expertise in the region

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### Constraints:

- Limited protection methods / frameworks for water reserve areas of small atolls (eg Bonriki water catchment area, Kiribati)
- High fragmentation of management of elements affecting freshwater supply (Tuvalu, Samoa, Tonga)
- Lack of effective watershed planning and management mechanisms & potable water distribution systems at the State and National level.
- Lack of understanding of related issues (mining, forestry, agriculture etc) of SD and freshwater management (Samoa)
- Poor data and knowledge of Ground water systems – poor management
- Lack of data and planning systems (SOPAC – PC 3) for freshwater management
- Outdated laws & poor administration capacity for integration
- Poor monitoring and engineering data and methods of collection
- Limited resources for long term programmes
- Problems with maintaining water supply quality (Niue, Tuvalu, Kiribati)– low and raised atolls: effluent disposal, use of fertilizers and pesticides, waste dump leaching, activities about bores, sea –water wash-over during storms (Tuvalu)

### Needs:

- Urgent need for Freshwater management Master Plan.(Samoa)
- High priority given to the enforcement of EIA regulations in order to control water extraction and development which threatens the resource (Samoa)

## 8. Land Resources

Land degradation is a problem in many PICs where land resources are the basis for subsistence and commercial economic activities

Need to:

- Raise awareness of the need for land management
- Improve data collection on the extent of land degradation
- Improve integration between agencies dealing with land degradation
- Integrate EIA and legal procedures into decision making through 'integrated planning' systems
- Acknowledge communal land tenure and resource use systems when designing sustainable land management systems
- Find mechanisms that strengthen the ability of traditional systems and which are acceptable within Pacific cultures

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### Constraints

#### General:

- Population and land use pressures reducing land cover
- Coordination problems with land resources and economic/environmental management – decision making and implementation
- Plethora of 'conservative' legislation dealing with aspects of Land resources (20 in Tonga), however minimal laws/regulations dealing with soil conservation (Tonga).
- Soil erosion (Tonga)

#### Agriculture:

- Environmental and climatic conditions exposing vulnerabilities
- Calcareous soils of Atolls (Niue, Kiribati, Tuvalu)
  - Low fertility
  - Low topsoil availability
  - High pH
  - Limited rainfall
- Droughts: impacts of El Nino, 1997-8.
- Salt intrusion (small atoll islands from sea washover during storms (Tuvalu & Kiribati)
- Limited land areas or land dispute limiting availability (Kiribati, Tuvalu, Niue)
- Limited knowledge & practice in growing fruits for local demand – import substitution needed (Kiribati)
- Weed infestations (RMI)
- Limited knowledge and practice in pest maintenance
- Limited options to increase economic viability of agriculture (ie high transaction costs/ economies of scale!)
- Problems with use of mechanical methods of bush clearance (esp bulldozer use – Niue)
- Excessive roadage in forest areas for agriculture and forestry access - Niue
- Conflict of in-come generating programmes and SD pursuits (Niue – eg taro scheme and biodiversity protection)
- Inappropriate crops in past development assistance (Niue- limes, passion-fruits)
- Over-cropping of already cleared lands – reduce rotation from disputes, land administration economic development emphasis

#### Needs for Agriculture:

- Increased and consistent research at national level on alternative crops for import substitution & cash cropping (Kiribati).

- Knowledge and practice of composting in lieu of synthetic fertilizers (traditional methods) – Tuvalu & Kiribati
- Increase knowledge and practice in traditional farming methods
- Research and technology transfer for national based genetic research (traditional crop genetic diversity protection)
- Need for integrated laws governing land resource development, forestry, agriculture, biodiversity, water management and development planning.

## 9. Energy Resources

Energy has a vital role in achieving sustainable economic growth, but PICs face unique challenges with regards to energy including:

- widely distributed and isolated population centres
- high dependence on imported fossil fuels
- a minority of the population served by electricity

Actions required include:

- Capacity development efforts such as improvements in energy planning and management, development of human resources, creation of public awareness and research and development in renewable energy;
- Legislative and policy platforms that increase access to power , improve transportation infrastructure, promote renewable energy sources, improve energy efficiency, reduce dependence on imported fossil fuels, and incorporate environmental considerations into energy sector planning;
- Improving international and regional coordination and cooperation to build national capacity.

### Constraints:

- High cost of fossil fuel (diesel, petrol & aviation fuel) an economic burden (Kiribati, RMI);
- Renewable Energy not reliable given the status of technology and the population pressures
- Renewable energy reasonable for remote outer islands for lighting and basic apparatus – due to low cost for implementation. Ongoing maintenance issue however.(Kiribati, RMI and Tuvalu)
- Limited ongoing funds for energy development
- High maintenance cost for standard and renewable energy sources
- Absence of investment in better technology (cleaner & renewable energy sources)
- Efforts for cleaner production and renewable energy spread thin on-the-ground - spasmodic (Tonga, Tuvalu)

### Needs:

- Increased investment in local efforts for cost efficient cleaner production and renewable energy sources.
- Development of an Energy Policy supported by institutional measures. (Samoa)
- Careful monitoring of government owned energy supply facilities as well as the promotion of viable renewable energy development.(Samoa)
- Utilisation of sustainable renewable energy (indigenous)
  - providing appropriate incentives to promote more indigenous renewable energy sources.

## 10. Tourism Resources

Tourism is an increasingly important economic sector in most PICs and one of the few industries with substantial future growth opportunities in the Pacific.

Actions required include:

- Recognition of social and environmental impacts of tourism
- Regional and national audits to 'characterize' natural resources & where appropriate determine 'suitabilities' and 'carrying capacity' for tourism development
- Human resource development at all levels of tourism
- Partnerships for sustainable tourism, in terms of both impacts and to assist in the development of environmentally and culturally sustainable tourism
- Improve links between national tourism offices, environmental agencies and NGOs and industry
- Further development of environment based (ie "green") tourism

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### Constraints:

- Poor coordination between industry, bureau and agencies (Tonga)
- Absence of codes of practice (Tonga)
- Lack of environmental guidelines (Tonga)
- Poor retention of multipliers from multi-national development (ie profits offshore)
- Poor linkages between national and regional efforts
- Waste management (particularly dumping, hazardous substances)
- Maintenance of freshwater and energy resources (Niue)
- Loss of amenity and natural ecosystems.

### Needs

- Better cooperation required based on communication
- Improved awareness of link of tourism and sustainable economic development
- Regional work on eco-tourism: guides, best practice and benchmarks

## 11. Biodiversity Resources

Pacific islands have high levels of species diversity and endemism. However in many PICs these biological resources are isolated, relatively limited in extent and threatened by the introduction of exotic species, unsustainable development and natural disasters.

Actions required include:

- Further support for the Action Strategy for Nature Conservation
- Encourage the involvement of local communities in the management of natural areas
- Efforts to continue the work of conservation programmes which are ending, such as the SPBCP
- Dealing more effectively with invasive species, biosafety, intellectual property rights and the conservation of marine biodiversity

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***“Biodiversity incites spirituality in the communities and helps shape our culture because of our dependence on it for supply of food, for a sense of identity and raw materials for commerce.” [Government of Niue, National Biodiversity Strategic Action Plan, 2001]***

### Constraints

- Limited on-going funding for biodiversity programmes (Tonga)
- High maintenance costs for biodiversity efforts
- Centralist emphasis on programmes
- Lack of integrated natural resource management / planning regimes with local decision making emphasis (Tonga)
- Limited laws advocating integrated approach to decision making
- Limited use of traditional knowledge / practices in integrated decision making (Tonga)
- Poor past planning in biodiversity programmes (Tonga eg of tree growth rates)
- Access to genetic resources and benefit sharing
- Problems with use of mechanical methods of bush clearance (esp bulldozer use – Niue)
- Excessive roadage in forest areas for agriculture and forestry access – Niue
- Deforestation from Taro scheme (Niue)
- Deforestation caused through land disputes - avoidance of conflict or result of adjudication.

### Needs:

- Protection of traditional resources (Niue)
  - Priority to extend efforts of Conservation Area work under SPBCP (Niue)
  - Advancement of programmes to extend / replicate protected areas /conservation areas – representative areas, sensitive & vulnerable ecosystems (Tonga, Niue, Samoa)
  - Advancement of cost effective means for use of traditional/local knowledge in decision making, programme design and resource management. Reference to community development ethos in sustainable development initiatives (Niue, Solomon Islands).
  - Forwarding of IPR protection mechanisms & mechanism for benefit sharing.
  - Increase resources for the management of marine resources (Samoa)
  - Broaden biodiversity conservation through projects that capture the value and security of biodiversity.(Samoa).
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## 12. National Institutions and Administrative Capacity

National capacity development can be achieved through:

- Integration of environment and development within national institutions
- Integrated Legislation platforms that support and link environmental objectives with economic objectives

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### Constraints:

- Poor institutional strengthening for sustainable development (Tonga)
- Emphasis on centralization of legislation, management regimes etc – affects efforts for decentralization
- Poor institutionalization of participation and consultation in decision making, programme/project design, development and inception
- Poor legitimate involvement and partnering with NGOs/ Civil Society (Tonga, Samoa,)
- Poor environmental management skills across resource use agencies
- Limited resources for environmental programmes and poor resourcing for enforcement.
- Limited funds for implementation of environmental management efforts eg Climate Change (Tonga)
- Understanding of the spheres of planning and nature of and inter-linkages of various types/levels in sustainable development:
  - Economic planning (too much emphasis in past without commensurate advocacy with others – Tonga)
  - Physical/Resource Use /Land use planning: frameworks which enable three pillars of SD to be addressed in the micro-development process
  - Specific sector / cross-sector planning: eg energy planning, engineering/ infrastructure planning; planning for adaptation (CC); biodiversity planning (Tonga); hazard/disaster management.
- Reactionary programmes of the Environmental unit (Niue) – actions precipitated by donor agency / regional agency priorities and programme design.
- Lack of enactment of environment & integrated environmental planning Bills (Niue)
- Poor coordination among resource use, planning and management agencies (Cook Islands, Niue – eg Water resource & waste management)

### Needs:

- Planning (Tonga, Niue, Samoa,) : need for planning to deal with -
  - Coordination of physical development processes
  - Multiple demands on land resources
  - Build up and integrate EIA capacity
  - Decentralization of settlement – holistic integrated natural resource management
  - Framework for economic valuation of natural assets – and integration into decision making [CBA – Tonga]
  - Energy – skills required (Tonga)
  - Climate change & SLR - coordination of adaptation measures into development processes.
- Planning: sustainable development pursuits should see equal emphasis on macro – development planning (ie economic policy & mainstreaming) and micro- development planning (physical decision making integration & management) – bearing in mind the need to expand linkages.(Tonga)
- Sustain all SD programmes in the longer term by government taking the lead role in providing local budgets to conduct activities of the programmes, and to enhance awareness and policy formulation.
- Redesign existing programmes to be in line with the national strategies and to take on a participatory approach to gauge community involvement (Samoa).

## 13. Regional Institutions and Technical Cooperation

Although the Pacific has an effective system of cooperation amongst regional agencies, through vehicles such as the CROP, further improvements in regional programming and technical assistance are still required.

Actions include:

- Support to strengthen the operational effectiveness of the regionally present UN Agencies especially with respect to inter-agency cooperation
- Improve linkages between central offices of the UN Agencies and country offices in the Pacific
- Improve alignment of UN activities with existing regional organisational strategies and work plans, through the UN SIDS office
- Develop country profiles to assist with Programme/project design and delivery

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***The review and monitoring of the BPOA and its derivatives as well as regional based programmes and projects are integral to the sustainable development of Pacific Island Countries. In this connection there is an urgent need to strengthen the links between the environment and integrated development by building capacity through education, training and awareness programmes, the development of appropriate benchmarks for sustainable development, information sharing and the use of quality data for decision-making. [Government of Samoa National Assessment – draft, May 2002]***

**Constraints:**

- Coordination of multi-lateral and bi-lateral programmes (Tonga)
- Unclear jurisdiction exacerbated by 'overlapping' programmes without the identification and support of linkages
- Level of Civil society partnering in regional programmes (Tonga)
- Lack of involvement of PICs in the selection of Technical Assistance personnel and mode of employment.
- Coastal Ecosystem Management: conflict with a number of coastal programmes (Fiji).
- Lack of national focus within Apia Statement for WSSD, as delegates not fully briefed prior to the meeting.

**Needs:**

- Have an integrated approach in implementing current programmes such as POPs, Climate Change, Montreal Protocol on ODS, Marine Protected areas and International Waters – to include all stakeholders (Samoa)
- Better conduits of information on SD between Regional and national governments and their agencies

## 14. Transport and Communications

Transport and communications networks in the Pacific are fragmented, costly and generally poorly developed and maintained.

Actions required include:

- Priority given to the maintenance of existing assets rather than developing new assets
- Improve civil aviation infrastructure
- Update civil aviation legislation and harmonise civil aviation technical regulations
- Human resource development should be tailor made to suit island requirements
- Policies should minimise environmental impacts
- Development of regulations consistent with international obligations
- Develop expertise in the field of information and communication technologies

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### Constraints:

#### Infrastructure

- Ownership and disputes over land – access
- Calls for compensation for access, development of infra-structure & clearance of vegetation
- Poor long term planning (Tonga)
- Limited access to coast for development (Tonga)
- Poor mechanism for infrastructure / transport cost recovery (Tonga, Samoa)

#### Information & Communication

- Poor long term planning and needs analysis (Tonga)

#### Needs

- Land use planning systems to enable planning for and consistent development of infra-structure. (Kiribati, RMI)
- Land tenure management systems to enable construction and maintenance of necessary public infrastructure (SAPHE project Kiribati)

## 15. Science and Technology

The limited capacity of PICS to access and utilise developments in science is another dimension to their vulnerability.

Actions required include:

- Integrate science and technology activity with development
- Improve Information Communication and Technology to enable income generating opportunities
- Build on existing regional communities expertise in forest knowledge, land capabilities & problems, biodiversity and climate change
- Support the application of modern technologies such as GIS and Remote Sensing as effective tools for providing data for decision making
- Improve support for collaboration of regional organisations
- Integrate actions with existing or future planning processes and mechanisms

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### Constraints:

- 
- Lack of consistent effort for efficient alternative energy sources
- Lack of technical backup for new technologies – skills and equipment
- High implementation and maintenance cost of alternative energy efforts of the past
- Availability of cost-efficient disaster management technology – spills, fires, chemicals

### Needs:

- Efficient and low maintenance alternative energy technology, instituted after careful evaluation of economic, social and environmental implications
- Efficient fossil fuel

## 16. Human Resource Development

HRD is one of the critical pillars of sustainable development

Actions required include:

- HRD focus should be made on strengthening education, fostering traditional knowledge, ameliorating the impacts of urbanisation and empowering NGO civil society and women
- Problems with environmental health issues faced by PICs include: declining funding, the growing burden of poverty, emergence of lifestyle related diseases and resurgence of infectious diseases
- Rapidly expanding requirements of industry and growing urban populations place large demands on PICs
- Poor integration of services provided by external parties such as donors and commercial enterprises
- Lack of land use and resource use planning frameworks in most PICs.

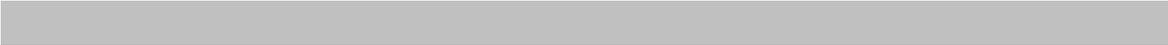
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**Constraints:**

### **Education and Awareness**

- Training in Adaptation techniques for Climate Change (Tonga)
- Continue targeted awareness and training toward waste management & re-cycling– health and economic implications (Kiribati, Niue)

### **Policy Analysis**

- Need for capacity building / training in sustainable development policy analysis
  - Need for human resource development in environmental reporting and monitoring (Niue, RMI)
- 

## 17. Implementation, Monitoring and Review

Effective monitoring and review of the Barbados Programme of Action is required for the achievement of sustainable development.

Actions required include:

- Use economic instruments to protect the environment and promote sustainable development
- Resources for national capacity building to integrate environment and development
- Improve coordination amongst international, regional and national donors
- Resources are required to take into account environmental and social dimensions of ongoing economic reforms
- Develop effective partnerships among all stakeholders, especially local communities, NGOs and the private sector
- International support required to develop specific mechanisms to facilitate the development of partnerships for sustainable development

### INSTITUTIONAL FRAMEWORKS

*To achieve its vision (Samoa) there is a need to foster development by bringing people into the process through initiating policies that makes development more participatory and equitable, involving all stakeholders in decision making at all levels particularly in natural resource management, improving incentives for people to manage resources sustainably, enhancing opportunities for low income earners to enter the formal economy, promoting a greater role for NGOs in development and using information technology for awareness raising. [Government of Samoa National Assessment – draft, May 2002]*

**Population growth and urbanization are key concerns for a number of PICs (Tonga, Samoa, Kiribati, Tuvalu) and are seen as primary drivers for over-exploitation and degradation of marine and terrestrial environments.**

#### **Policy, Strategies & Plans:**

- Improve land use and resource use policy & guidelines. Institutionalize through integrated law and administrative procedures (Samoa, Niue, RMI)
- Awareness and training in policy analysis techniques, policy development and integration of policy and development processes (Tonga)
- Need for policy assistance at times for specific issues (Tonga)
- Implement other line policies parallel to NEMS policies in furthering the stand of legal instruments to enforce sustainable development approaches that prioritise environmental concerns. (Samoa)
- Encourage greater cooperation in efforts amongst resource use, planning, economic and environmental agencies (Cook Islands, Tonga, Samoa).
- Emphasis on assistance and availing of resources to tackle national **Coordination** of policy, strategies, guides and practices for SD pursuits (Niue, Cook Islands, Samoa):
  - Identification of all players and their roles – emphasis on integrative efforts
  - Integrate cross-sectoral programmes
  - Policy analysis to identify gaps in policy, institutional frameworks, data, actions
  - Increase in NGO / Civil Society involvement (partnerships) in policy development and implementation.
  - Improve administrative procedures / institutional arrangements (including government restructuring where effective – Niue) across governments to ensure sound environmental responsibility incorporated from Corporate plans through to programme/ extension delivery processes.
  - Improve conduits of communication between government agencies, and between government and civil society
  - implementation of resource use planning and management
  - advancement of training in integrated resource management

- Initiatives to further the involvement of NGOs / Civil Society in governance, including the delivery of programmes / activities.
- Complete and make operational policies, strategies and actions under the NEMS (Samoa)
- Sector Specific Policy and Management Strategies required (Solomon Islands):
  - Fisheries
  - Forestry
  - Tourism
  - Population
  - Energy
- Need for Sustainable Development Plan and guides (Solomon Islands)

## LEGISLATION

### Laws

- Poor laws relative to Soil Conservation (Niue, Tonga)
- Poor laws relating to englobo biodiversity protection, with non-centralist approach ie grass-roots.(Tonga, RMI)
- Poor laws relating to planning for and control of wastes [dumping & litter] (Tonga,Tuvalu, Kiribati, RMI)
- Lack of stocktake of existing laws / instruments governing environmental management and sustainable development – with the view to analyzing options for improvement, integration and participatory methods. (Samoa, Niue)
- Poor coordination between legislative frameworks for SD at the State and sub-national levels (Palau)
- To facilitate grass-roots environmental management and sustainable development practices encourage national laws to re-enforce village level / fono by-laws where they exist (Niue, RMI).
- Upgrade legislations and administrative processes to provide better enforcement. Current environmental legislation does little – reliance on fines and short imprisonments. Fines should be increased. (Samoa) Potential for environmental performance to be tied to business registration?

## DECISION MAKING

- Need for actions in developing decision-making systems suitable for PICs (Tonga, RMI).
- Assistance to develop institutional frameworks for integrated decision making & community based design and delivery of SD programmes (Solomon Islands)
- Need for physical land / resource use planning systems to address: urbanization, decentralization, settlement patterns, rural land use, equity in development, inclusion of adaptation measures in the development process, protection of vulnerable & sensitive areas, avoidance of hazards, good delivery of quality of life services. (Tonga, Niue, Samoa, Palau, Kiribati, Tuvalu, RMI, Solomon Islands, Fiji (NGO), Vanuatu – discussions with Mr Manasseh Tary, Director General Infrastructure & Public Utilities)

## CAPACITY BUILDING

### *Communication and Awareness*

- Strengthen Awareness of Sustainable Development – linkages of economic, environment and economic pillars: target audiences – community and Ministers, need for mainstreaming in policy development, need for integration in decision-making.

### *Education and Training*

- NGOs and Civil Society involvement in policy and technical training (Samoa, NGO)
- Strategic Planning and participatory planning workshops (national based)
- Develop highly skilled and specialized staff particularly those with the capabilities to compile and store data on various environmental concerns, commensurate with continued development of GIS systems that can monitor changes.

- Advance lobbying, advocacy and negotiation of environment and SD officers and NGOs

### **Human Resource Development**

- Gender mainstreaming and awareness program (Fiji)
- Human rights ... ethnic conflict resolution (Fiji)
- Develop and implement a capacity building framework that is responsive to Pacific countries, that nurtures the well being of individuals, families, communities and society and encourages and empowers people to take ownership of processes that affect them.(Fiji, NGO)

## **INFORMATION**

- Need for improved coastal and terrestrial data and means to use for decision making – statistics, valuation of resources, planning analysis (Tonga, Samoa, RMI, Niue)
- Need for training in aggregation and use of data in decision making (Tonga)
- Programmes and projects should target the generation of data and information (Social, economic and environment) for SD decision-making (Solomon Islands, RMI, Tonga, Niue)
- Enhance provision on review and monitoring tools and methods – SD and environmental performance/status (Fiji, RMI).
- Need for long term monitoring of environmental changes and germane data collection mechanisms for national planning purposes (Palau)
- To ensure proper utilization of land resources there is a need to promote land capability guidelines and an integrated system of land information (Samoa)
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### **Chapter 8, Agenda 21**

*(a) Improving the use of data and information at all stages of planning and management, making systematic and simultaneous use of social, economic, developmental, ecological and environmental data; analysis should stress interactions and synergisms; a broad range of analytical methods should be encouraged so as to provide various points of view;*

## **RESEARCH & TECHNOLOGY**

- Targeted research on practical SD actions at national level: inshore fisheries, coastal management, climate change & SLR adaptation options; valuation of natural resources
- Technical capacity development (training, equipment & technology transfer) in monitoring & surveillance (Tonga, Niue, Palau).

## **COORDINATION & COOPERATION**

- Need for institutional mechanism and processes based on community development and delivery ethos (Solomon Islands)
- Involvement of NGOs & Civil Society in Participation approaches to development decision making (Samoa, NGO)
- Target resources to build capacity of NGOs at national level, with the view for partnering with Government (Samoa, NGO)
- Strengthening the roles of major groups (Fiji):
  - Involvement of major groups in national task forces, and committee's (names of committees)
  - Formal and Informal regular consultations between state and major groups on planning, implementation and awareness
  - Involvement in National Development Plan process
  - Further Conservation Agencies Network group

- Land owner consultations for development (including tourism, logging, fishing, and other development programs)
- Establishment of Multi-sectoral task forces and Commissions which include participation of civil society groups
- Holding of National Economic Summit for contribution to national development plans
- Strengthening the level of services to rural areas in consultation with existing networks
- Need to balance top-down and bottom-up approach in national planning
- Church – national reconciliation eg. Independent religious groups
- National Youth Congress

## PRIORITY SECTOR NEEDS

### **Climate Change, Variability and Sea Level Rise**

The single largest issue for many PICs, with multifarious dynamics and linkages to and from other environmental exploitation and degradation issues. Due to global warming and other factors, PICs now face:(Palau, Kiribati, Tuvalu)

- frequent El Niño/La Niña conditions such as drought, coral bleaching, and storms;
- fragmentation of natural habitats;
- coastal erosion;
- degradation of agricultural lands;
- an increase of infectious outbreaks such as dengue fever and other diseases; and
- a growing number of introduced invasive species that damage crops and natural habitats.

### **Marine and terrestrial Biodiversity**

- Advancement of programmes to extend / replicate protected areas /conservation areas – representative areas, sensitive & vulnerable ecosystems (Tonga, Niue, Samoa)
- Advancement of cost effective means for use of traditional/local knowledge in decision making, programme design and resource management. Reference to community development ethos in sustainable development initiatives (Niue, Solomon Islands).
- Forwarding of IPR protection mechanisms & mechanism for benefit sharing.
- Increase resources for the management of marine resources (Samoa)
- Broaden biodiversity conservation through projects that capture the value and security of biodiversity.
- Conduct more research on ecological values of ecosystems to continuously update information of the status of ecosystems and its impact on species biodiversity (Samoa)

### **Natural Resource Management**

- Ocean resource management and equitable sharing of benefits from resources
- Use of Precautionary approach to resource management
- Conservation of critical natural resources
- Unsustainable harvesting of natural resources

### **Waste and Pollution**

- Pesticides/herbicides/other agro-chemicals (dumping ground)
  - need for monitoring and control
  - need to re-look at the type of aid and other “attachments” and well as retailing outlets (need to control the suppliers)
- Waste Disposal and Management options – limited resources and opportunity
- Limited standards and legislations to control waste
- Low infrastructure and capacity to manage wastes (eg. Recycling plants)
- Pollution
  - *water*, pollution, fecal coliform/number of reports, kai pollution from chemicals, impact on local community.
  - *air*: Bus & traffic pollution
  - *Land* pollution, lead batteries, plastics,

## Land Access:

Land administration (Access, dispute, dispute resolution) was nominated as a constraint in many resource use and human/physical management sectors. Samoa was about the only PIC who stated that land tenure and dispute was not a detrimental barrier to accessing land for economic investment.

## RESOURCE REQUIREMENTS

- Target resources at Social Development (Samoa)
  - Increase options for employment, especially the youth
  - Reduce inequality in employment and service provision
  - Increase resources available to disadvantaged groups
- Developed countries target is to allocate .07% of their GDP to developing countries, but this has not happened. Review of this commitment is needed for PICs to pursue SD (Fiji, NGO).
- Assistance / support of micro-finance establishments targeting multi-party loans (Samoa, NGO Meeting)
- Financial resources for NGOs: currently mostly through Government from Multilateral Funding Agencies (MFAs) – therefore independence of use is interrupted (Samoa, NGO)
- minimal financial, technical, and human resources to adequately address all sustainable development issues faced. (Palau)
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### Chapter 10 of Agenda 21, Land Resources

*Expanding human requirements and economic activities are placing ever increasing pressures on land resources, creating competition and conflicts and resulting in suboptimal use of both land and land resources. If, in the future, human requirements are to be met in a sustainable manner, it is now essential to resolve these conflicts and move towards more effective and efficient use of land and its natural resources. Integrated physical and land-use planning and management is an eminently practical way to achieve this. By examining all uses of land in an integrated manner, it makes it possible to minimize conflicts, to make the most efficient trade-offs and to link social and economic development with environmental protection and enhancement, thus helping to achieve the objectives of sustainable development. The essence of the integrated approach finds expression in the coordination of the sectoral planning and management activities concerned with the various aspects of land use and land resources.*