



Government of the Republic of Kiribati

National Sanitation Policy

Effective Sanitation for Healthy Communities, Environments and Sustainable Development

**Coordinated by the National Water and Sanitation Coordination
Committee through the Ministry of Public Works and Utilities**

March 2010

GOVERNMENT OF THE REPUBLIC OF KIRIBATI NATIONAL SANITATION POLICY

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1.0 TITLE OF POLICY

1. National Sanitation Policy (NSP)

2.0 PURPOSE AND CONSISTENCY OF POLICY

2. The NSP provides a framework for leadership and coordinated action in the provision of technically appropriate, cost-effective and environmentally sustainable sanitation to urban, rural and outer island communities in Kiribati. It is designed to complement the provisions of the National Water Resources Policy (NWRP) for the protection and conservation of Kiribati's fragile water resources with parallel objectives for improving the welfare and livelihood of I-Kiribati according to the vision the Government of Kiribati (GoK) has for water and sanitation.

3. In adopting the National Water Resources Policy and the National 10-Year Water Resources Implementation Plan in January 2009 the GoK was cognizant of the present pollution of water resources from inadequate sanitation and unsafe practices. As a consequence it saw the need for this National Sanitation Policy and integrated 10-Year Sanitation Implementation Plan to complement the NWRP. The GoK has received technical assistance for the development the National Sanitation Policy and 10-Year Sanitation Implementation Plan through the SOPAC executed European Union Pacific IWRM National Planning Programme. This draft Policy therefore presents the result of field work and consultation with sector stakeholders, the community and the National Water and Sanitation Coordination Committee (NWSCC), conducted between October 2009 and March 2010.

4. The impact of the present approach to sanitation on the social and environmental wellbeing of I-Kiribati has been assessed and this policy considers the options for affordable solutions and how the cultural concerns that have inhibited previous initiatives might be channelled more effectively to support sustainable urban development on South Tarawa and urban, peri-urban and rural land occupation elsewhere. The Policy also gives consideration to the protection of reef and lagoon environments and community fisheries.

5. The National Sanitation Policy is consistent with the National Development Strategy (NDS) 2004-2007 and the Kiribati Development Plan (KDP) 2008-2011 both of which contain policies and goals of direct relevance to sanitation:

- i. Ensuring the sustainable use of water resources for human consumption;
- ii. Providing sound infrastructure and services at reasonable cost;
- iii. Rehabilitating the existing sewerage and sanitation systems and improving their operation and management;
- iv. Improving maintenance standards of all government assets, and

v. Ensuring all future construction projects comply with the Environment Act.

6. The Kiribati Development Plan 2008-2011 echoes concerns over the quality and quantity of freshwater available to island communities and highlights the need to protect and sustain available sources, including steps to prevent the deterioration of resources through pollution from indiscriminate and environmentally damaging sanitation practice. This National Sanitation Policy is consistent with a major commitment on improved freshwater and sanitation by Te Beretitenti, His Excellency Aote Tong, December 2007, at the inaugural Asia Pacific Water Summit, in Beppu, Japan. It also complements the Public Utilities Ordinance relating to the protection of groundwater reserves and the National Water Resources policy (NWRP) and has relevance to the GoK's plan for Growth Centres on atolls beyond Tarawa.

7. The National Sanitation Policy is also consistent with regional and international initiatives and the target of the World Summit on Sustainable Development in Johannesburg, 2002 of "*halving the proportion of people who do not have access to basic sanitation by 2015*".

3.0 BACKGROUND TO THIS POLICY

8. Water supply and water resource issues in Kiribati are amongst the most complex in the world. They involve very vulnerable and scattered water resources used by more than 160 villages and two densely populated and growing urban areas on South Tarawa and Kiritimati Island. These are spread over 21 inhabited atolls or small islands, which span over 3 million km² of the central western Pacific. Water resource issues affect the entire population and span the responsibilities of many Ministries. In recent times, especially in urban areas, population pressure due to inwards migration and natural population growth has contaminated local groundwater resources, causing an increase in water-borne diseases and forcing households to rely on water delivered from government-managed water supply schemes pumped from distant, safer but limited ground water resources.¹

9. South Tarawa is the capital of Kiribati. It comprises a string of seven small islets with shallow tidal passages jointed by causeways stretching about 30km from east to west. It is located in the relatively dry equatorial climate zone and its climate is highly influenced by the El Nino-Southern Oscillation, a global coupled ocean atmosphere phenomenon. Average rainfall is 1500–2000 mm/yr, but it varies greatly and long droughts are common. The population of South Tarawa in 2005 was 40,311² with growth of about 1.9% p.a. over the period 2000-2005, significantly lower than the 5.3% p.a. growth rate over the period 1995-2000, primarily due to an easing of rural to urban migration. The present population is estimated at around 46,000 people. South Tarawa households are substantially wealthier than those in other parts of the country but many still depend on traditional fishing and agricultural activities.

10. Consultations throughout the Gilbert Group conducted for the National Adaption Program of Action, Kiribati Adaption Project Phase I (KAP I) identified widespread concerns

¹ Republic of Kiribati. *National Water Resources Policy*. January 2009.

² 2005 Census

over freshwater, and seven water and sanitation related priority strategies in the top ten priorities, leading to the development of the NWRP³ and now this NSP.

- i. Water pumps/pipes are required to convey water from safe and secure sources to settlements and homes;
- ii. Water wells require protection;
- iii. Available water on the islands needs to be located and assessed;
- iv. Water conservation needs to be practiced in the homes (including awareness raising);
- v. Sanitation needs improvement and more toilets must be constructed;
- vi. Water conservation in piped systems;
- vii. Rainwater harvesting is required with the installation of rainwater tanks.

11. These strategies fall into three broad categories:

- i. To make use of a variety of water sources;
- ii. To protect freshwater sources from the impact of human activities and animal wastes;
- iii. To conserve use of water by the community, industry and government agencies, with a need for complementary awareness-raising.

12. This National Sanitation Policy targets complementary strategies for the protection of water wells, freshwater sources, and lagoon foreshore waters through improved sanitation and the provision of toilets.

13. NWRP highlights the essential nature of freshwater for the survival of Kiribati, where freshwater is a vital, strategic natural resource on which the island communities and their economic growth is founded, and where security of supply needs to be assured. NWRP also highlights priority issues for action, a number of which have direct bearing upon the priorities for sanitation:

- i. The high rate of preventable deaths and illnesses due to water-borne diseases;
- ii. Contamination of fresh groundwater sources by human settlements and poor sanitation practices;
- iii. Inequities in the provision of services to schools, hospitals, clinics, rural, outer island and urban communities;
- iv. Limited community understanding of effective sanitation, responsible water use and protection, and
- v. A need for enhanced water [and sanitation] education in schools.

14. This sanitation policy builds upon, and strengthens the relationship and complementary objectives of NWRP to present a comprehensive and complete sector

³ The National Water Resources Policy and the complementary National Water Resources Implementation Plan were drafted by Professor Ian White, Australian National University.

15. The National Development Strategy 2003-2007 and the Kiribati Development Plan 2008-2011 both contain policies and goals of direct relevance to the sanitation sector, including:

- i. Providing sound infrastructure and services at reasonable costs;
- ii. Rehabilitating the existing sewerage system and improving its operation and management;
- iii. Improving maintenance standards for government assets, and
- iv. Ensuring that all future construction projects comply with the Environment Act.

4.0 FORMULATION OF THIS POLICY

16. This policy has grown from widespread public concerns over freshwater and sanitation voiced during public consultation for the National Adaption Program of Action, Kiribati Adaption Project Phase I (KAP I). Draft policy was initiated under the EU Pacific Water Governance Project, coordinated by SOPAC and developed by the National Water and Sanitation Coordination Committee⁴ under the Chair of the Permanent Secretary of the Ministry of Public Works and Utilities.

17. Broad consultation has occurred on the draft versions of this Policy, with and amongst the primary stakeholders, NGOs, community representatives, and national organisations. Government agencies with responsibilities in the water and sanitation sector were involved in its drafting through the NWSCC. The water and sanitation providers, the Public Utilities Board in South Tarawa, the Director of MPWU and the Ministry's Water Engineering Unit, the Environmental Health Office of the Ministry of Health, the Department of Environment and Conservation, WHO, KANGO and the National Program Coordinator, Kiribati National MORDI Program, (FSPK – MORDI) were consulted and have contributed to the development of this NSP. The island Councils of North Tarawa and Butaritari, the island water and sanitation technicians and medical assistants also provided comment along with the Council of Churches and national organisations.

18. Implementation of this policy and the respective roles and responsibilities for effective delivery of the planned outcomes are presented in the National 10-Year Sanitation Implementation Plan. Two companion documents: (i) *Background to the National Sanitation Policy; and Plan; and, (ii) Sanitation Options Assessment* provide background information upon which this policy has been developed, including an assessment in conjunction with the National Water and Sanitation Coordination Committee of the strengths, weaknesses, opportunities and constraints to the development of technically appropriate and affordable sanitation. Sector governance; institutional arrangements; responsibility for the existing sewerage systems on South Tarawa; the building code and the need for plumbing and

⁴ Membership comprises representation of the various Ministries with interests in freshwater resources and supplies, especially the MPWU, MHMS, MELAD, MISA, MLDP, the Meteorology Office within MCRRD, the Ministry of Fisheries and Marine Resources Development (MFMRD), the Council of Churches and the Kiribati Association of NGOs (KANGO)

drainage regulations; and sewerage and sanitation systems aligned to the separate needs of South Tarawa, Kiritimati and the Outer Islands have been reviewed and are reflected in this Policy.

5.0 JUSTIFICATION FOR THIS POLICY INITIATIVE

19. Improvements in sanitation have ranked highly on recent international development agendas. The World Summit on Sustainable Development in Johannesburg in 2002 set a target of “halving the proportion of people who do not have access to basic sanitation by 2015.” Improved sanitation is also essential for achieving the goals of the Pacific Regional Action Plan on Sustainable Water Management endorsed by all Pacific Island National Heads of State during their meeting in Auckland in 2003, and presented to the 3rd WWF in Kyoto. The Action Plan called for broadly-based national water visions, development of capable institutions, national water action agenda and plans, empowerment of communities and integrated investment plans. Behavioural change and partnership between communities and government are seen as essential for improvement.

20. The Kiribati National Development Strategy 2004-2007 and the Kiribati Development Plan 2008-2011 include policies and plans of direct relevance to the improved provision of sanitation. The Kiribati Water Sector Road Map, developed by the ADB efforts for the Promotion of Effective Water Management Policies and Practice in 2004, identified the national policies and procedures as a core issue. The draft Solid Waste Management Policy and Action Plan have identified the impact of solid waste and the leachates on the fresh water resources and the lagoon and foreshore areas. More recently the National Water Resources Policy and National Water Resources 10-Year Implementation Plan have identified the need to:

- i. Increase access to safe basic sanitation removed from water resource areas, and
- ii. Develop a National Sanitation Policy.”⁵

21. Projects conducted by the international donors over the past decade have included water and sanitation infrastructure improvements and associated educational programs to raise awareness of the importance of safe potable water supplies and adequate sanitation among ordinary I-Kiribati.

22. In Kiribati, freshwater is a strategic national resource on which island communities and their economic growth are founded, and where the security of supply and quality needs to be assured. In most islands freshwater is limited, demand is increasing and the quality is deteriorating under the pressure of human activities, and the uncontrolled presence of animals. Water-borne diseases are increasingly common, especially among the elderly, the young and other susceptible population groups. Diarrhoeal diseases are endemic, outbreaks of typhoid occur annually and the country has the highest infant mortality rate in the Pacific region.

⁵ Objectives 1.7 and 4.6 respectively of the National Water Supply Policy

6.0 CAUSALITY AND IMPACTS - LESSONS LEARNED

23. The lessons learned from previous projects⁶ give concise indications of the considerations that have been balanced in the preparation of this NSP and the accompanying 10-Year Implementation Plan. These are:

- i. Local customs and traditional practices in South Tarawa have dictated a less-than-effective and a higher-cost approach to sanitation;
- ii. Water, sanitation and land tenure issues are interlinked;
- iii. Multi-dimensional projects require effective coordination;
- iv. Organisational and attitudinal change requires time;
- v. Service improvement requires ongoing community motivation and commitment;
- vi. Service improvement requires sufficient human resources; and
- vii. Simple and least costly solutions will be the most appropriate and sustainable.

24. Other relevant lessons come from the approaches being taken by KAP and the Kiribati Urban Renewal Program Scoping Study.⁷ Donor funded projects have traditionally been designed with an approach that allows limited community involvement during project design and implementation. Both projects identified the need for extensive community consultation with the former study concluding “that past development initiatives in South Tarawa have not always adequately addressed the basic needs of communities, especially as they relate to appropriate and affordable solutions for water, sanitation, shelter and security of land tenure.” A community-based approach to enable communities to fully engage in deciding their priorities, weighing the different options, appropriate levels of service in relation to costs, acceptability of the proposals, and monitoring of improvements will be essential for successful and sustainable outcomes and has been allowed for in this Policy.

25. This National Sanitation Policy and the accompanying 10-Year Sanitation Implementation Plan are built upon these strategies for community immersion in the choices for sanitation and their implementation. Awareness raising, community health education and hygiene, environmental impact considerations feature highly in both NSP and NSIP.

7.0 PRIORITY ISSUES ADDRESSED BY THIS POLICY

26. Issues to be urgently addressed include:

- i. The high rate of preventable deaths and illnesses due to water borne diseases;
- ii. Contamination of freshwater sources from pollution and adverse effects of human activities and poor sanitation practices;
- iii. Protection of lagoon waters from pollution;
- iv. Impacts of climate variability and change on the sanitation approaches adopted;
- v. Protection and enhancement of the natural environment;

⁶ ADB, Sanitation, Public Health and Environmental Improvement Project

⁷ NZAID and AusAID, 2007

- vi. Improved and equitable access to effective sanitation;
- vii. Improved sanitation for schools, hospitals and clinics;
- viii. Efficient sewerage and sanitation services;
- ix. Increased community participation in the choices for the provision, management and operation of sewerage and sanitation services;
- x. Improved awareness of sanitation issues;
- xi. Enhanced community awareness of sanitation and public health and hygiene requirements;
- xii. Strengthened institutional and human capacity and the provision of appropriate training in the sanitation sector;
- xiii. Better knowledge of the appropriate sanitation and sewerage options for Kiribati and their application;
- xiv. Technically appropriate, economically affordable and environmentally acceptable options for sanitation and sewerage, with cost recovery.

8.0 STATEMENT OF POLICY

8.1 Guiding Principle

27. “Effective sanitation for healthy communities, environments and sustainable development”.

8.2 Policy Goals

1. Effective, socially acceptable, and technically appropriate sanitation to sustain social and environmental wellbeing, and the development of Kiribati;
2. Sewerage, sanitation systems and community practices/behaviour which protect freshwater sources, lagoon waters and the environment from pollution;
3. Improved sanitation, community health and hygiene practices with reduced risk of water-borne diseases;
4. Deliver improved sewerage and sanitation, efficiently and effectively.

28. The primary intent of these goals is to improve public health by protecting existing groundwater sources from pollution and preserving the present and future sources of drinking water from contamination. Secondly, the goals aim at improving the quality of the lagoon receiving waters and the environment generally and, thirdly the intention is to ensure that technically appropriate and affordable sanitation is provided efficiently throughout Kiribati, according to the circumstances and needs of each community.

8.3 Policy Objectives

29. Under the four policy goals there are 15 specific policy objectives to guide all decisions and actions.

Policy Goals	Policy Objectives	Comments
1. Effective, socially acceptable and technically appropriate sanitation to sustain social and environmental wellbeing and development of Kiribati	1.1 Develop technically appropriate and cost-effective sewerage and sanitation options for the urban, peri-urban and rural circumstances of Kiribati.	Technically appropriate and cost-effective options are required for the urban areas of South Tarawa and Kiritimati, and the rural and village development in the outer islands. The piped options should make provision and provide for collection/disposal of extraneous items now flushed into the system and which are the cause of sewer blockages, e.g. sanitary pads, disposable nappies, and the historic use of rocks/leaves as cleansing materials.
	1.2 Increase coverage and access to effective and reliable sewerage and sanitation systems in South Tarawa, and the Outer Islands.	The existing saltwater flushing sub-systems to Betio, Bairiki and Bikenibeu require rehabilitation. Other sections of South Tarawa require sanitation urgently.
	1.3 Obtain community support and commitment for appropriate sewerage and sanitation options and sustainable operations.	I-Kiribati hold strong views on sanitation and the systems they find acceptable for their life-style and cultural beliefs. Consultation will be vital for acceptance.
2. Sewerage, sanitation systems and community practices/behaviour which protect freshwater sources, lagoon waters and the environment from pollution and degradation	2.1 Improve understanding of effective sanitation and the benefits to improved community health, natural resources and the environment.	Community health education and awareness is a fundamental requirement for improved community health and well-being.
	2.2 improved and well maintained systems and practices/behaviour that avoids pollution of groundwater resources and lagoon waters.	The protection of the ground water resources is a primary objective of the NSP. This will only occur if the systems are operated efficiently and are well maintained.
	2.3 Well engineered and technically appropriate sewerage and sanitation systems.	All rehabilitated or new systems need to be affordable and sustainable in the longer-term.
	2.4 Increase community awareness of and participation in the choice, provision, management and maintenance of effective sanitation.	Community consultation and involvement in the choice of the sanitation systems will be a key element in the sustainability of the systems.
3. Improved sanitation, community health and hygiene practices with reduced risk of water-borne diseases	3.1 Community health education, awareness and behaviour.	As above, community health and awareness and behaviour change programmes will be a vital component of the NSP and for the implementation plan. Knowledge and understanding of the linkages between sanitation and good community health is presently poor. The health and awareness programmes will include all behavioural practices, for example personal hygiene and washing hands

		thoroughly after toileting, and will be aimed at both school and community sectors.
	3.2 Reduce risks of cross-contamination of water supplies and ground water sources.	Effective sanitation is a key requirement in mitigating present pollution of the groundwater sources from the impacts of human and animal wastes.
	3.3 Improved maintenance and operation of public systems and household sanitary installations and fittings.	There are major issues at present from the ineffective maintenance of the sewerage sub-systems in Betio, Bairiki and Bikenibeu, and from unmaintained household sanitary fittings. For effective sanitation that avoids pollution of the groundwater, management and maintenance of all systems must be a primary consideration.
4. Deliver improved sewerage and sanitation, efficiently and effectively.	4.1 Improve governance of the sanitation sector.	The present governance arrangements are somewhat ad-hoc and lack effective commitment to coordination in the planning and implementation of the sanitation sector and for the regulation of the sector to achieve the gains sought.
	4.2 Efficient institutional arrangements and roles.	The respective roles of the sector organisations need to be refined, strengthened and formalised, including the roles for the private sector, NGOs and the community. The activities related to this objective set down in the National Sanitation Implementation Plan provides for representation from Aia Maea Ainea Kiribati (AMAK – National Women’s Association) on NWSCC.
	4.3 Review building code to include plumbing and drainage regulations.	The newly drafted building code requires extension and strengthening to require the provision of approved sanitary fittings for all new and renovated houses and other buildings, and the connection to approved methods of sanitation. Also for the approval of such works following installation, and subsequent routine inspection, maintenance and repair of defective facilities.
	4.4 Asset management plans for sewerage and sanitation systems and services.	The preparation of an asset management plan for the sewerage systems managed and operated by PUB will be a key step in achieving the sustainable operation and

		management of these systems. Similarly all new systems should have asset management plans.
	4.5 Cost recovery for sewerage and sanitation services	The provision of sewerage and sanitation has a cost that should be borne in partnership between the Government and the users [and potential users] of the system. The operation and management of all systems requires adequate financing for long-term effectiveness and sustainability.

8.4 Planned policy Outcomes

30. This National Sanitation Policy addresses the short and longer-term priorities raised during the consultations with the communities and sector stakeholders regarding sanitation and the protection/preservation of freshwater sources. Planned outcomes from the implementation of the Policy are the effective and efficient provision of affordable sanitation, which is technically appropriate and manageable for the specific circumstances in each location throughout Kiribati. The protection of freshwater sources, natural receiving waters and the environment will occur with increased community participation in the provision and maintenance of the acceptable and sustainable sanitation systems and practice.

31. The planned outcomes of National Sanitation Policy implementation are:

- i. Protection of freshwater sources from pollution and adverse impacts of human activities;
- ii. Protection of lagoon waters from pollution;
- iii. Enhanced resilience to extreme events, climate variability and climate change;
- iv. Protection and enhancement of the natural environment;
- v. Improved public health due to a decrease in water-borne disease;
- vi. Equitable access to effective sanitation;
- vii. Improved sanitation for schools, hospitals and clinics;
- viii. Increased coverage of sewerage and sanitation systems, and access to these systems;
- ix. Efficient sewerage and sanitation services;
- x. Increased community participation in the provision, management and operation of sewerage and sanitation services;
- xi. Improved awareness of sanitation issues;
- xii. Enhanced community health education and sanitation awareness programs;
- xiii. More effective governance, planning, coordination and implementation of sanitation projects;
- xiv. Clear identification of roles and responsibilities and coordination in the sanitation sector;

- xv. Strengthened institutional and human capacity and the provision of appropriate training in the sanitation sector;
- xvi. Better knowledge of the appropriate sanitation and sewerage options for Kiribati and their application;
- xvii. Technically appropriate, economically affordable, environmentally acceptable options for sanitation and sewerage, with cost recovery;
- xviii. Improved risk assessment and management of the sanitation sector;
- xix. Enhanced access to donor and loan schemes and coordination of donor agencies in the sanitation sector.

9.0 STRATEGIES FOR ACHIEVING POLICY OBJECTIVES

32. A range of strategies are available to achieve the policy objectives of the NSP.

<p>1. Short to Medium-Term (up to 3 years)</p>	<ol style="list-style-type: none"> 1. Review and strengthen composition and performance of the National Water and Sanitation Coordination Committee. Invite AMAK representation on NWSCC ; 2. Implement the 10-year National Sanitation Implementation Plan, in unison with the 10-year National Water Resources Implementation Plan; 3. Reassess, redefine and streamline the institutional and other roles of the Government agencies, Urban and Island Councils, service providers and communities in the provision of effective sanitation; 4. Commission hydro-geological assessment of ability to use degraded underground water resources under urban areas of South Tarawa for freshwater pour-flushing for sanitation; 5. Commission focused study of best Option(s) for sanitation [and sewerage] for urban and peri-urban areas of South Tarawa; 6. Consult widely on the options and reach consensus with the community on the most practicable, cost-effective and socially acceptable option(s) for improved sanitation, and protection of the existing groundwater sources; 7. Pilot options, review, modify and adopt “best” approach for effective sanitation of the urban sector of South Tarawa; 8. Assessment of pilot schemes and development of program for wider implementation across the urban sector of South Tarawa; 9. Develop and pilot suitable low technology, low-cost sanitation systems suitable for outer island, and rural locations; 10. Evaluate and mainstream the best low-technology and low-cost system(s) with programmes for sanitation improvements; 11. Develop and consult with the urban councils, the community and sector stakeholders over the effectiveness of by-laws pertaining to the keeping of domestic animals [dogs and pigs] in the developed urban areas, for the avoidance of pollution to ground water sources. Amend and strengthen enforcement, as judged necessary; 12. Review circumstances of marine discharges from vessels moored off Betio and the international conventions and local regulations relating to the operation of these vessels. Assess impacts on lagoon waters and,
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	<p>if detrimental recommend regulations to prevent pollution of foreshore waters;</p> <ol style="list-style-type: none"> 13. Develop and implement a national system for checking and reporting natural water quality of groundwater sources and lagoon waters; 14. Develop and adopt appropriate natural water quality standards for freshwater and saltwater recreational and fishing waters; 15. Develop and publish environmental guidelines for the provision, operation and management of sanitation and sewerage systems; 16. Assess the implications of global climate change and the likely impacts on the options for sanitation, and for the environmental as a consequence of the options and their management; 17. Assess the personnel and training needs in the sanitation sector and action initiatives for the development of skills and certificated plumbers and drain layers; 18. Public Utilities Board to prepare an asset management plan (AMP) for the South Tarawa sewerage schemes and other sanitation that may be placed under its stewardship (Kiritimati) and the provision of adequate financial allocation for the full implementation of the AMP; 19. Develop and enforce Building Code requirements for the provision, design, construction and maintenance of sanitary fixtures and fittings [plumbing and drainage] for residential. and other buildings, especially places of public assembly; 20. Introduce programmed [regular] inspection of sanitary fittings and fixtures and the sewerage systems and regulate for the repair of leaks, observed infiltration/exfiltration, and other deficiencies; 21. Develop equitable cost recovery methods for urban sanitation [sewerage] schemes; 22. Develop and implement community and student public health awareness and education programs on sanitation methods and practice. Investigate combining curriculum for combined water, sanitation and solid waste educational approach; 23. Develop indicators of improved sanitation management; 24. Support regional and international projects which aim to improve sanitation systems and protect groundwater sources from pollution.
<p>2. Longer-term (3 to 10 years)</p>	<ol style="list-style-type: none"> 1. Review, improve and initiate where necessary national water supply and sanitation legislation [law] and supporting regulations; 2. Formalize the role of sector regulator (MPWU) for water supply and sanitation within the proposed law; 3. Review, rationalise and strengthen the roles of government agencies and corporatized entities in water and sanitation; 4. Continue strengthening community participation in the planning, and implementation of sanitation systems by establishing and supporting village water and sanitation committees; 5. Combine the National Water Resource and Sanitation Policies aligned to the water and sanitation law, and combine the 10-year Water Resource and Sanitation Implementation Plans. Review every 5 years; 6. Continue to develop plans for the continued improvement and coverage of urban sanitation systems; 7. Continue monitoring and reporting of natural water quality of

	<p>groundwater lenses and lagoon foreshores, and related efforts to reduce pollution and undesirable impacts of human occupation;</p> <p>8. With the involvement of the urban councils, enforce the by-laws on the keeping of animals [dogs and pigs] in the developed urban areas of South Tarawa;</p> <p>9. Continued application and enforcement of the building code and related requirements for the design, construction and maintenance of sanitary fixtures and fittings, and plumbing and drainage infrastructure;</p> <p>10. Continue monitoring of climatic extremes and their impacts on sanitation;</p> <p>11. Review equitable cost recovery methods annually, to ensure income remains relative to the costs of the sanitation services provided;</p> <p>12. Review of training plan biennially and continued training of sanitation specialists and operatives;</p> <p>13. Build-up capacity in the government and private sectors for sanitation planning, management and maintenance.</p> <p>14. Prepare and adopt an asset management plan (AMP) for sanitation other than the sewerage schemes and sanitation systems on South Tarawa placed with the Public Utilities Board;</p> <p>15. Review, updating and consolidation by PUB of an asset management plan for the sewerage schemes on South Tarawa, Kiritimati and other sanitation systems for South Tarawa placed with the PUB;</p> <p>16. Support and participate in regional and international water, climate and sanitation programs;</p>
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10.0 ORGANISATIONAL AND INSTITUTIONAL RESPONSIBILITIES

33. The *Directions Assigning Ministerial Responsibility* (5 August 2003) includes “Ministerial Coordination” and “Cabinet Taskforces Chairmanship” in the responsibilities of Office te Beretitenti (OB). The role of National Strategic Policy and Risk Assessment Unit (NSPRAU) and OB includes:

- i. Reviewing national policies of strategic importance and of long-term risk; and
- ii. Facilitating inter-ministry coordination on specific issues of national importance.

34. The abovementioned “*Directions*” also specify line Ministry responsibilities for water and sanitation:

- i. Minister for Public Works and utilities – water management, sewerage systems;
- ii. Minister for Health and Medical Services – health inspector services and environmental health;
- iii. Minister for the Environment, Lands and Agricultural development – environment, conservation and pollution management.

35. The National Water and Sanitation Coordination Committee chaired by the Ministry of Public Works and Utilities has a role for coordinating implementation across Ministries and civil society through the involvement of representative NGOs, the Council of Churches and

other national organisations, and for monitoring and reporting on the implementation of this policy. Activities and outcomes with measureable performance indicators, and respective roles and responsibilities are covered in the accompanying National 10-Year Sanitation Implementation Plan.

36. Other government agencies such as the Public Utilities Board with responsibilities for operations and maintenance of the South Tarawa sewerage systems, and the Kiribati Housing Corporation with responsibility for the provision and maintenance of the sanitary fittings and fixtures in the government houses have an important role to play in assisting the successful implementation of the NSP and NSIP. The urban and island Councils, the Kiribati Association of NGOs (KANGO) and the Kiribati Council of Churches have a similar role to play.

11.0 RESOURCE AND FINANCIAL IMPLICATIONS

37. Additional sanitation specialists and focused professional advice will be required to implement this Policy, together with the allocation of funds to permit the improvements and sanitation projects and programs identified in the Policy. These are spelled out in greater detail in the Implementation Plan. The Policy and Implementation Plan provide a suitable reference for proposals to donor agencies and international and bilateral partners for the development of funding priorities for Kiribati associated with programs to preserve and protect freshwater sources, and improve public health.

12.0 IMPLEMENTATION AND REPORTING SCHEDULE

12.1 Implementation

38. Implementation of the NSP will commence following approval by Cabinet. The accompanying National Sanitation Implementation Plan uses the objectives and strategies of this policy to develop a 10-year program of defined activities with related outputs and performance indicators, with delegated responsibilities. Implementation will be managed by the Ministry of Public Works and Utilities through the National Water and Sanitation Coordination Committee.

12.2 Reporting

39. The National Water and Sanitation Coordination Committee will report progress and the state of the nation's sanitation and related matters to Cabinet annually. The NSP and the NSIP will be formally reviewed after 4-years in conjunction with the planned review(s) of the National Water Resource Policy and National 10-Year Water Resource Implementation Plan.