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civils, politiques, économiques, sociaux et culturels,
y compris le droit au développement**

Rapport de la Rapporteuse spéciale sur le droit à l'eau potable et à l'assainissement, Catarina de Albuquerque

Additif

Mission à Kiribati (23-26 juillet 2012)*

Résumé

Du 23 au 26 juillet 2012, la Rapporteuse spéciale sur le droit à l'eau potable et à l'assainissement a effectué une visite officielle à Kiribati afin d'examiner la situation du droit à l'eau potable et à l'assainissement dans le pays. Kiribati est confrontée à d'importantes difficultés dans l'exercice du droit à l'eau potable et à l'assainissement en raison, notamment, de ses difficultés géographiques et financières, qui sont aggravées par les conséquences néfastes des changements climatiques. Le pays doit de toute urgence examiner les questions essentielles de l'assainissement et de l'hygiène afin de réduire les nombreux décès évitables de nourrissons et d'enfants. Kiribati met tout en œuvre avec la communauté internationale afin d'améliorer la situation en ce qui concerne l'eau et l'assainissement. Elle devrait toutefois s'approprier davantage les efforts déployés avec le soutien des donateurs internationaux et veiller à ce que l'accès à l'eau et à l'assainissement soit l'une des mesures d'adaptation les plus importantes. Les plans d'adaptation devraient accorder une place centrale au droit à l'eau et à l'assainissement afin de répondre aux besoins effectifs de la population sans discrimination.

* Le résumé du présent rapport est distribué dans toutes les langues officielles. Le rapport proprement dit est joint en annexe au résumé et il distribué dans la langue originale seulement.

Annexe

[Anglais seulement]

Report of the Special Rapporteur on the human right to safe drinking water and sanitation on her mission to Kiribati (23 – 26 July 2012)

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I. Introduction

1. From 23 to 26 July 2012, the Special Rapporteur on the human right to water and sanitation conducted an official visit to Kiribati, aiming to examine the situation of the human rights to water and sanitation in the country. During the mission, she met with different interlocutors, including the Minister of Education; the Permanent Secretary of the Ministry of Foreign Affairs and Immigration; and officials of the Ministry of Public Works and Utilities, the Ministry of Health, the Ministry of Internal and Social Affairs, and the Public Utilities Board. She visited several communities in South Tarawa and talked to people about their access to water, sanitation and hygiene. She met with civil society organizations and development partners. She also met with representatives of the Australian Agency for International Development (AusAID), the New Zealand Aid Programme, the Japan International Cooperation Agency and the European Union, as well as with the United Nations Country Team and the Applied Geoscience and Technology Division (SOPAC) of the Secretariat of the Pacific Community in Suva. The Special Rapporteur expresses her appreciation to the Government of Kiribati for the cooperation extended in organizing and facilitating the visit. She also extends her special thanks to SOPAC and to the United Nations Country Team. Finally, the Special Rapporteur wishes to express her gratitude to the people from South Tarawa she met with, who shared with her their stories and challenges, but also hopes, in relation to access to water, sanitation and hygiene.

2. Kiribati consists of 32 low-lying atolls and one elevated coral island, spread over 3.5 million square kilometres of ocean. The distance between the capital, Tarawa, and outer islands can be more than 3,000 km. The remoteness of Kiribati itself and distances between the capital and the country's outer islands make the management of water and sanitation services a considerable challenge. Kiribati is one of the five countries and territories in the world that are comprised entirely of low-lying atolls.¹ The atolls are no higher than 3 to 4 metres above sea level and are a few hundred metres wide on average. Natural resources, including soil for agricultural development and freshwater sources, are limited on these narrow and flat atoll islands. One of the officials described the situation of Kiribati as follows: "We are living on a 'ship' where water is limited". This unique geography exposes most of the people directly to extreme weather events, which are intensified by climate change. Some communities on some of the outer islands, such as Abaiang, have already been forced to relocate due to coastal erosion, which is occurring as a consequence of climate change. Due to internal migration and natural population growth, nearly half of the country's total population (103,000) currently lives in South Tarawa. Some towns in South Tarawa, such as Betio, are among the most densely populated single-story areas in the world, with 6,600 inhabitants per square kilometre. These circumstances are putting extreme stress on water resources and the infrastructure.

II. Human rights legal framework

3. At the international level, the human right to safe drinking water and sanitation derives from the right to an adequate standard of living, which is provided for in, inter alia, article 25 of the Universal Declaration of Human Rights and article 11 of the International Covenant on Economic, Social and Cultural Rights. This right was also explicitly recognized by the General Assembly and reaffirmed by the Human Rights Council in

¹ These are: Kiribati, Maldives, the Marshall Islands and Tuvalu, as well as Tokelau. See J. Barnett and W.N. Adger, "Climate dangers and atoll countries", *Climatic Change*, vol. 61, No. 3 (December 2003), p. 322.

2010.² The human rights to safe drinking water and sanitation can be defined as the entitlement of everyone to water and sanitation that is safe, available, accessible, affordable and acceptable. These rights must be guaranteed in a non-discriminatory manner, and the State is obliged to take concrete and targeted steps towards ensuring universal access to water and sanitation to the maximum of available resources, including international assistance and cooperation. Water must be safe for human consumption, and sanitation facilities must safely prevent human and animal contact with human excreta. The realization of these rights also requires ensuring access to adequate and affordable hygiene practices, including hand washing and menstrual hygiene management with dignity. Effective measures must be taken to avoid the infiltration of human and animal waste into the groundwater or into other water sources. Furthermore, appropriate mechanisms must be implemented to deal with the effects of climate change, including emergencies or natural disasters that might affect these human rights.

4. Kiribati has ratified the Convention on the Elimination of All Forms of Discrimination against Women, and the Convention on the Rights of the Child, with reservations to the latter on articles 24, paragraph 2 (b), (c), (d), (e) and (f); 26; and 28, paragraph 1 (b), (c) and (d), (on health, social security and education, respectively).³ While the Government of Kiribati explained to the Special Rapporteur that it had decided to withdraw the reservations to the Convention on the Rights of the Child, its decision has not been officially transmitted to the Secretary-General. The Special Rapporteur strongly encourages the Government of Kiribati to clarify this issue as soon as possible, in particular since article 24 (c) places a specific obligation on the State to combat disease and malnutrition by providing clean drinking water. As a State party to these treaties, Kiribati has an obligation to fulfil the human rights to water and sanitation specifically, under article 14, paragraph 2 (h), of the Convention on the Elimination of All Forms of Discrimination against Women and article 24 (c) of the Convention on the Rights of the Child, bearing in mind the openly affirmed intention of the Government to withdraw its reservation to the latter.

5. Kiribati is not yet a party to the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights or the other core human rights treaties; and is strongly advised to accede to those. By becoming a State party to the international human rights treaties, which lay down States' legal obligations, the Government will undertake to implement domestic measures and legislation compatible with its treaty obligations and duties. In any case, Kiribati has been a State Member of the United Nations since September 1999, which obliges the country to respect the Charter of the United Nations and the Universal Declaration of Human Rights, which enshrines the right to an adequate standard of living, including the human right to safe drinking water and sanitation. The Universal Declaration of Human Rights is a constitutional document of the United Nations and is part of customary international law.

6. A first and crucial step that any Government must take in order to ensure the human rights to water and sanitation is to recognize them in an international context and at the national level. Kiribati supported the outcome document of the United Nations Conference on Sustainable Development (Rio+20 Conference), entitled "The future we want",⁴ which

² See General Assembly resolution 64/292, and Human Rights Council resolutions 15/9 and 16/2.

³ Declaration by Kiribati on the Convention on the Rights of the Child: "The Republic of Kiribati considers that a child's rights as defined in the Convention, in particular the rights defined in articles 12-16 shall be exercised with respect for parental authority, in accordance with the Kiribati customs and traditions regarding the place of the child within and outside the family." Available from http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&lang=en#EndDec.

⁴ General Assembly resolution 66/288, annex.

reaffirmed this fundamental human right. This positive evolution should now be explicitly reaffirmed and further developed nationally.

7. The human rights to water and sanitation are not explicitly affirmed in the provisions of the Constitution of Kiribati, which provides in its chapter II, entitled “Protection of Fundamental Rights and Freedoms of the Individual”, for the protection of the rights to life and to personal liberty and for protection from inhuman treatment and from discrimination. Nowhere in the text of the Constitution is there an explicit reference to the recognition and protection of economic, social and cultural rights. The Special Rapporteur thus calls on the Government to consider widening the scope of the Constitution to explicitly protect not only the human rights to water and sanitation, but also other economic, social and cultural rights that are contemplated in the Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights, such as the rights to education, health, food, social security and housing. The explicit recognition of these rights seems crucial in a country that is party to the Convention on the Rights of the Child and the Convention on the Elimination of All Forms of Discrimination against Women and whose Constitution provides every person with the fundamental rights and freedoms of the individual – which cannot be fully realized nor enjoyed with no clear and full protection of socioeconomic rights.

8. Furthermore, the definition of discrimination included in the country’s Constitution limits its scope to practices by which people are afforded a different treatment due to their “race, place of origin, political opinions, colour, creed or sex” (art. 3). This is a much narrower definition than the one contained in the Universal Declaration of Human Rights or core international human rights treaties, where discrimination is defined as any distinction based on “race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status”.⁵ The Special Rapporteur encourages the Government of Kiribati to broaden the concept of discrimination contained in its Constitution, so as to reflect international norms and consensus on this matter.

9. There is no national human rights institution in Kiribati. Kiribati considers a regional human rights institution more appropriate at this time. Nevertheless, the Special Rapporteur calls on the country to accept the recommendations made in this regard under the universal periodic review of the Human Rights Council held in 2010 (A/HRC/15/3, para. 66) and to establish its own national human rights institution that complies with the principles relating to the status of national institutions for the promotion and protection of human rights (Paris Principles).

10. Kiribati does not have a comprehensive law to govern the provision of water and sanitation. Neither does it have a comprehensive law regarding the management and conservation of water resources, and the existing regulations are fragmented. While the country has a building code that regulates rainwater harvesting, there has been no enforcement mechanism and many of its provisions are simply not implemented. As a result, the full potential of rainwater harvesting is not realized. In the recommendations contained in the legislation analysis conducted by the Government of Kiribati in 2004, it is noted that the formulation of comprehensive water resources legislation would be extremely advantageous.⁶ In order to establish a clear legal framework for the provision of water and sanitation and the management of water resources and wastewater, an essential first step is to implement the human rights to water and sanitation. A clear legal framework could formalize the current management of water resources by a wide range of agencies in Kiribati, clarify responsibilities regarding the provision of sanitation services, and regulate the monitoring of and reporting on water quality.

⁵ Universal Declaration of Human Rights, art. 2.

⁶ Kiribati, International Waters Program, “Analysis of legislation”, November 2004, p. 19.

III. Institutional structure and policy framework for water and sanitation

11. At the policy level, Kiribati has adopted the National Development Strategy 2003-2007 and the Kiribati Development Plan 2012-2015, which contain some policies and goals that are of direct relevance to the water and sanitation sectors, namely improving the supply and quality of water, ensuring the sustainability of water resources, promoting community participation for better use of water resources, rehabilitating and expanding existing water systems, improving the collection, storage, treatment and distribution of water and rehabilitating the sanitation systems. In the Kiribati Development Plan 2012-2015, water and sanitation are addressed in the context of an analysis of the 2009 Kiribati Demographic Health Survey. According to the survey, while about 90 per cent of households have access to an improved water source, some houses have inadequate sanitation facilities and share toilets.⁷ This base analysis itself is far from the reality that the Special Rapporteur observed during her mission, which will be discussed further in the sections below. In the Development Plan, poor quality of water is addressed mainly under the chapter on environment, focusing only on the consolidation of monitoring programmes and on water protection and conservation. Poor coverage and deficient maintenance of water and sanitation infrastructures are addressed under the chapter on infrastructure, in which the Government focuses on encouraging and enhancing community participation in maintaining national infrastructure and increasing financial support for coverage and maintenance. The Development Plan does not identify any links between these water and sanitation issues and the high infant and child mortality rates referred to under its chapter on health.

12. Kiribati adopted a National Water Resources Policy and a National Sanitation Policy in 2008 and 2010, respectively. Combined, these documents contain 40 short- to medium-term priority strategies for implementation in the first 3 years following the adoption of the respective policy, and an additional 27 priority actions to be undertaken in the subsequent 3 to 10 years. Both policies cover many of the normative contents of the human rights to water and sanitation and some human rights principles, such as participation – even though they do not include a specific reference to human rights – and provide a broad overview of important issues to be addressed. The National Sanitation Implementation Plan – a 10-year plan based on the National Sanitation Policy – includes more concrete objectives and activities.

13. It seems, however, that the Government of Kiribati itself needs to process these comprehensive policies and break them down into concrete and feasible action plans, taking into consideration its own financial and human capacities. While all the priority issues contained in these policies are important, the Special Rapporteur is of the view that the priority-setting was overambitious, unfocused and seemingly lacking in national ownership. The priorities set for the first three years have yet to be implemented. The current review of these policies is a key opportunity for the Government to identify more targeted and achievable priorities. This exercise should be undertaken by the Government itself so as to enable it to take ownership of its own policies and translate its commitment into action. Adopting and implementing a national water and sanitation strategy and plan of action covering the entire population and all the dimensions of the human rights to water and sanitation, as well as addressing some of the existing gaps, would be another crucial step. Such a strategy and plan of action should be devised, and periodically reviewed, on the basis of a participatory and transparent process.

⁷ Kiribati, Kiribati Development Plan 2012-2015, p. 34.

14. In terms of the institutional structure regarding water and sanitation in Kiribati, the National Strategic Policy and Risk Assessment Unit, under the Office of Te Beretitenti (the President), coordinates government and community activity relating to water and sanitation. (Unfortunately the Special Rapporteur did not have an opportunity to meet with representatives of the Office.) The Public Utilities Board, under the Ministry of Public Works and Utilities and as per the Public Utilities Ordinance of 1977, has extensive powers over water supply, sanitation and electricity in South Tarawa and in some parts of North Tarawa. The Ministry's Water Unit has the primary responsibility for the provision of water. However, none of the government institutions, at this stage, has a specific responsibility for sanitation and hygiene promotion. The Water Unit has been slowly incorporating the work relating to sanitation services and there is a plan to formally broaden its competences in 2013, so as to also cover sanitation. The Water Unit is playing the role of regulator as well, without a clear mandate provided by law. The Ministry of Health and Medical Services carries out monitoring of water quality and health inspectorate services. The Department of Public Utilities within that ministry sets the standard of water quality and monitors water quality but without a sound legal mandate to carry out such monitoring. The only related provision in the Public Health Regulations of 1926 is one requiring that guttering and downpipes be kept clean and "efficient". The Ministry of Environment, Lands and Agricultural Development is responsible for carrying out environmental impact assessments for major water resource developments and sanitation and waste disposal projects. Island councils play a key role in the implementation of rural water and sanitation schemes. Allocating clear responsibilities in the water and sanitation sectors at the national level, including the establishment of an independent regulator, is another urgent step that the Government must take to realize the human rights to water and sanitation.

IV. The human rights to water and sanitation in Kiribati

A. Water

15. In 2011, 66 per cent of the population of Kiribati had access to an improved water source.⁸ Only South Tarawa and Christmas Island have public water supply infrastructures and are partially connected to a water network. This supply is usually provided only every other day for two hours per day. The rest of the population in South Tarawa and Christmas Island relies on rainwater supplies and well water. Another type of source is fresh groundwater lenses (see para. 17 below), which are the main sources of potable water for people on the outer islands, although the primary source of water supply varies between and within islands. People on outer islands also rely on open wells and unprotected rain catchment systems.

1. Availability

16. Human rights law requires that water is available continuously and in a sufficient quantity to meet the requirements of drinking and personal hygiene, as well as of additional personal and domestic uses, such as cooking and food preparation, the washing of dishes and laundry, and cleaning.⁹ Neither continuity nor the exact quantity required can be determined in the abstract, since individual requirements for water consumption vary, for instance due to climatic conditions, level of physical activity and personal health conditions. Regarding the necessary quantity, estimates and international recommendations

⁸ WHO and United Nations Children's Fund (UNICEF), *Progress on Sanitation and Drinking Water: 2013 Update* (Geneva, 2013), p. 23.

⁹ Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002), para. 12 (a).

can provide broad guidance for assessing whether the availability criterion is being met. For instance, it has been estimated that all domestic needs can be met with about 100 litres per capita per day.¹⁰ An absolute minimum amount in the context of disaster response is set at 15 litres per capita per day.¹¹ However, such an amount raises health concerns, as it is insufficient to meet hygiene requirements, and must not be understood to correspond to the full realization of the right to water.

17. As a country of atoll islands, freshwater sources in Kiribati are limited to shallow groundwater, rainwater and desalinated water. The viability of groundwater in low atolls as a source of fresh water is determined by the thickness of freshwater lenses. Such groundwater lenses, which are often found in small coral islands or atolls, consist of a layer of rainwater floating above more saline sea water. Thin freshwater lenses are vulnerable to rainfall variability and over-extraction.

18. There is only a partial picture of the availability of fresh water in Kiribati, and most of the information is limited to the situations on Tarawa and Christmas Island. The availability of water in South Tarawa is of particular concern. An increasing population is putting additional stress on water resources as well as on the infrastructure. Between 1995 and 2000, there was significant internal migration of people from the outer islands to South Tarawa, resulting in an urban growth rate of 5.2 per cent, compared with a national growth rate of 1.7 per cent. According to SOPAC, the combined sustainable yield of the two major groundwater sources, Bonriki and Buota, in South Tarawa, is 2,010 kilolitres (kl) per day. With estimated system losses of 40 per cent of this yield, the available water supply is 1,206 kl per day. The population of South Tarawa, as measured in 2010, is approximately 50,000; thus, the available water from groundwater sources, if evenly distributed, currently amounts to 24 litres per person per day. With an estimated 5 per cent increase in population from 2010, by 2025 the estimated available freshwater will amount to only 11.6 litres per person per day. This is far below the minimum amount of water needed to meet people's most basic needs.¹² Such a scenario demonstrates that even with a relatively modest increase in population growth, South Tarawa will face significant constraints with respect to drinking water available for the population. SOPAC experts stressed that it was essential to remember that the groundwater reserve was providing 2 million litres of fresh water per day and that it would be impossible to ensure a sustainable provision of freshwater without the protection of these groundwater resources, even though desalination and improvements to rainwater harvesting would contribute to some increases in available water.

19. A lack of confidence in a regular water supply, together with a lack of incentives and awareness of the necessity of saving water, contribute to water losses, as people are not sure what time the water will be available and keep the water tap open. The Public Utilities Board estimates that water system losses represent up to 40 per cent of the water supply in South Tarawa. Taking into account waste and unlawful connections, the total losses are estimated to represent nearly 70 per cent of the supply.

20. The Office for the Coordination of Humanitarian Affairs, the United Nations Children's Fund (UNICEF) and SOPAC discovered through a joint assessment that, if adequate rain falls during part of the year, there should be sufficient water resources to

¹⁰ Guy Howard and Jamie Bartram, *Domestic Water Quantity, Service Level and Health* (WHO, Geneva, 2003), p. 22.

¹¹ The Sphere Project, *Humanitarian Charter and Minimum Standards in Humanitarian Response* (Geneva, 2011), p. 97. Available from <http://www.sphereproject.org/handbook/>. Howard and Bartram identify 20 litres per day as basic access, but note that this does not guarantee crucial hygiene requirements (*Domestic Water Quantity*, p. 22).

¹² According to assessments by WHO, between 50 and 100 litres of water per person per day are needed to ensure that most basic needs are met and few health concerns arise.

provide drinking water for all I-Kiribati (Kiribati people). The challenge, rather, is the distribution of water and the prevention of a degradation of the small freshwater lenses used for washing, sanitation and agriculture.¹³ Monitoring activities, in particular the collection of information on the salinity of the water in the lenses, are essential to assessing the condition of the lenses, for example to evaluate whether over-extraction is occurring. There is, however, no such regular and analysable monitoring of salinity data, thus it is difficult to assess the recharge level and sustainability of those important water sources.¹⁴

2. Desalination of water

21. Due to the very limited available freshwater sources in Kiribati, the option of desalination has been tried, but with few successes. The operation costs of desalination plants are very high due to the need for large amounts of reliable power supply, and the maintenance requires high technical capacity. On a small, isolated island, it is a great challenge to maintain desalination plants. Of the five desalination plants installed in Kiribati in the past few years, only one – on Banaba Island – is operational, and only partially.¹⁵ Despite these negative experiences, the Asian Development Bank and AusAID are implementing a desalination project under the Pacific Regional Infrastructure Facility. The Tarawa Water Master Plan: 2010-2030, supported by the Asian Development Bank, AusAID and the New Zealand Aid Programme, citing an assessment that was carried out, indicates that desalination is the most cost-effective solution only if it can be managed and maintained over a period of longer than 10 years. According to information the Special Rapporteur received during the mission, the capital investments in the four planned desalination plants will amount to 9.5 million Australian dollars (\$A), and the estimated cost of a maintenance contract is \$A 200,000 per year. Moreover, electricity costs to run the desalination plants will reach \$A 2.2 million per year. According to the Public Utilities Board, the cost of a cubic metre of desalinated water will be US\$ 20 (the water itself costing US\$ 5 and the distribution, including pumping, amounting to US\$ 15).

22. In any case, if desalinated water is to become a viable and sustainable option in Kiribati, the Government must seriously consider all the implications of this choice – in particular regarding the impact that the operation and maintenance of desalination systems will have on the national budget, and what effects it will have on the price that citizens pay for water. The Special Rapporteur learned during the mission that desalinated water is not economically sustainable without major subsidies by the Government. In this context, the affordability of water has to be taken into account as a priority when selecting the most appropriate solutions. On the other hand, a solution has to be found that is financially viable and sustainable for a country with a gross domestic product (GDP) of US\$ 163 million. An ideal solution would consist of a combination of investments aimed at (a) increasing the country's water harvesting and storage capacity; (b) boosting the protection and conservation of groundwater sources; and (c) prioritizing the substantial reduction of leakages and other losses of piped water in South Tarawa. Following the implementation of those three measures, and provided that further water resources are needed in the country, more limited investments for desalination could be undertaken.

3. Affordability and sustainability

23. The normative content of the human rights to water and sanitation requires that sanitation and water facilities and services must be affordable to all people. The direct and

¹³ OCHA, SOPAC and UNICEF, "Report on El Niño/Southern Oscillation (ENSO) in Kiribati: report on the La Niña-induced drought conditions and potential humanitarian impacts for the Government of Kiribati and development partners" (2011), p. 15.

¹⁴ Ibid.

¹⁵ Kiribati, "National integrated water resource management diagnostic report", November 2007, p. 26.

indirect costs and charges associated with securing water must be affordable, and must not compromise or limit people's capacity to acquire other basic goods and services guaranteed by human rights, such as food, housing, health services and education. However, affordability does not necessarily require services to be provided free of charge. When people are unable, for reasons beyond their control, to gain access to sanitation or water through their own means, the State is obliged to find solutions for ensuring this access.

24. At the same time, sustainability is particularly relevant to issues concerning water and sanitation. Water networks or other sources of water delivery may be built, but in the absence of corresponding capacity-building to maintain such infrastructure, the ongoing needs of the community in question will not be met. Economic sustainability requires, *inter alia*, that, in addition to the initial investment, the costs of ongoing operation, management and investment must be taken into consideration from the planning phase onwards in order to ensure the continued functioning of the system. One source of income in this regard is user fees. However, measures to achieve economic sustainability must take into account the equality aspect of ensuring that the poorest segments of the population can still afford these services. The availability of skilled labour and affordable spare parts for operation and maintenance are just as important. In that context, good practices could include building the capacity of the local community, or of the local private sector, to maintain facilities after a project initiated by development agencies or civil society organizations is terminated.

25. As another element in ensuring the economic sustainability of water systems, while respecting the principle of affordability, tariff structures can be implemented which ensure that those who can afford it contribute to the sustainability of the system, and that those who cannot afford it receive assistance from the State. In the case of South Tarawa, there is currently a flat rate tariff system; the fee is US\$ 10 per month per connection. The Public Utilities Board conducted a survey and discovered that 67 per cent of water is lost through constant system losses, such as leakages, as well as through illegal connections and waste (see also para. 19 above). There is no systematic way of collecting the tariff, and the Public Utilities Board has not been able to collect enough fees to recover the cost. This flat and unenforced tariff is also a disincentive for the people to save water.

26. At the time of the Special Rapporteur's visit, the Public Utilities Board was discussing the new tariff system, particularly in relation to desalination plants, and considering the introduction of a tariff that would be metred and proportional to the actual consumption. The human right to water does not require the provision of free water; however, for the right to be fulfilled, water must be affordable to all. While the introduction of the new tariff system could be a good incentive to save water and could help ensure the long-term sustainability of the water system, there should be a thorough discussion on the affordability of water to all residents of South Tarawa, as well as the possibility of introducing social tariffs or creating subsidies for water services – a priority when selecting adaptation measures for the water sector. This is particularly relevant given that much of the population on South Tarawa lives under the poverty line.

27. The Special Rapporteur fully shares the view of SOPAC that in order to ensure a sustainable supply of drinking water, the Government, together with the international community, should make the utmost effort to preserve the precious groundwater resources and further explore and map available groundwater resources. In parallel, the Government should focus on tackling system and other losses. There is also room for improvement with regard to rainwater harvesting. With respect to the preservation of the groundwater sources, measures should be urgently taken to, *inter alia*, improve the sanitation system to prevent further contamination. The Kiribati Adaptation Program (KAP) Phase III refers to the issue of water leakages, and the Government is working with an international expert to address the problem. Tackling water losses includes implementing an appropriate tariff system that is acceptable to and affordable for the people.

4. Quality

28. While the most recent estimates indicate that 66 per cent of the population in Kiribati uses improved water sources, the number of people relying on water of poor quality is unfortunately estimated to be much higher. To meet the standards of the relevant human rights, water must be safe, that is, of a quality that does not pose a threat to human health. In its Guidelines for Drinking-water Quality, the World Health Organization (WHO) defines safe drinking water as water that “does not represent any significant risk to health over a lifetime of consumption, including different sensitivities that may occur between life stages” (p. 1). The current monitoring of access to water under the Millennium Development Goals is based on the assumption that improved sources, such as piped connections, protected wells and rainwater collection, are likely to provide safe water. This, however, is not always the case. The drinking water obtained from many improved sources is in fact unsafe, with potentially adverse consequences for health.

29. The Special Rapporteur was very worried and shocked by the high infant mortality rate (43 deaths per 1,000 live births in 2009), as well as by the under-five child mortality rate (75 deaths per 1,000 live births in 2009),¹⁶ which is the highest in the Pacific region. Waterborne diseases are increasingly common, diarrhoeal diseases are endemic and outbreaks of typhoid occur annually. Apart from perinatal conditions, diarrhoeal diseases and pneumonia are the main causes of child mortality, and malnutrition is a major contributing factor.¹⁷ Furthermore, unsafe water has other profound effects on people’s health and, as a result, on their capacity to attend school, work or otherwise participate in society. The transmission of waterborne diseases via contaminated water must be avoided.

30. Water quality in Kiribati is a constant concern, given the contamination of the water network and wells by seepage from septic tanks and other types of pollution. Furthermore, saltwater intrusion, aggravated by the rising sea level and king tides, into underground freshwater sources is affecting water quality and availability. The Government has also acknowledged that “the quantity of freshwater in the country is limited, demand is increasing and the quality of water is especially vulnerable”.¹⁸

31. Despite the recognition of serious problems regarding water quality, the Special Rapporteur was surprised to learn that water quality testing had not been conducted as regularly as it should be because of the complexity of funding and procurement mechanisms. At the time of her visit, no water testing had been carried out at all in the country during the previous six months, according to information gathered during the mission. The monitoring of water quality should be included in the Government budget as one of the core activities, to ensure regular testing. The fact that none of the Government institutions is responsible for sanitation and hygiene promotion is a contributing factor to the high mortality rates.

¹⁶ Kiribati National Statistics Office and the Secretariat of the Pacific Community, “Kiribati Demographic and Health Survey 2009” (Noumea, 2010), p. 118.

¹⁷ Ministry of Health and Medical Services. See also World Health Organization (WHO), Western Pacific Region, *Western Pacific Country Health Information Profiles*, p. 151.

¹⁸ Kiribati, National Water Resources Policy, p. 6.

B. Sanitation

32. Only 39 per cent of the population in Kiribati had access to improved sanitation facilities as of 2011.¹⁹

1. Availability, accessibility and quality

33. The human right to sanitation requires that there must be a sufficient number of sanitation facilities (with associated services) within, or in the immediate vicinity of, each household, health or educational institution, public institutions and places, and the workplace (availability); that sanitation facilities must be hygienically safe to use, which means that they must effectively prevent human, animal and insect contact with human excreta (quality); and that sanitation facilities must be physically accessible for everyone within, or in the immediate vicinity of, each household, health or educational institution, public institutions and places, and the workplace (accessibility).

34. However, only approximately 2,000 households on South Tarawa are connected to a waterborne sewage system; most of the population rely on deficient septic tanks, or use the beach, the sea or the bush as toilets. Due to the limited fresh water, seawater is provided for toilet flushing, and that damages the sewer pipes. The lack of sanitation services is most pronounced in rural Kiribati, where four of every five households use non-improved sanitation facilities.

2. Open defecation

35. Open defecation is a common practice – 37 per cent of the population practiced it as at 2011.²⁰ In South Tarawa, more than 60 per cent of people defecate on the beach, despite it being illegal to do so. The situation of the lack of sanitation services is most pronounced in rural Kiribati and urban high-density areas such as South Tarawa, leading to a prevalence of diarrhoea in children under 5. Women and girls experience the lack of sanitation differently. They must go to the beach, sea or bushes very early in the morning so that they are less exposed. With respect to menstruation, women and girls have no facilities to clean themselves hygienically with privacy.

3. Menstrual hygiene management

36. Sanitation in schools remains a problem, particularly on the outer islands.²¹ It is common for adolescent girls to miss three days of school per month because sanitary pads are unaffordable for many families, and also because toilets in schools are not equipped with menstrual hygiene facilities or not properly maintained. It is also increasingly common for women and girls to use disposable baby nappies during menstruation because they last longer and are cheaper. In addition to the hygienic concern of using the same baby nappy all day, their disposal is a problem in atoll islands; Kiribati has no land on which to dump wastes and does not recycle its waste.

4. Affordability

37. The human right to sanitation requires that access to sanitation facilities and services, including the construction, emptying and maintenance of facilities, as well as

¹⁹ See also WHO and UNICEF, *Progress* (footnote 8 above), p. 22.

²⁰ WHO and UNICEF, *Progress*, p. 22.

²¹ UNICEF has implemented a water and sanitation programme in Abemama and built toilets for girls and boys. As part of awareness-raising on hand washing, it conducted a survey on the sale of soap on the island.

treatment and disposal of faecal matter, must be available at a price that is affordable for all people without limiting their capacity to acquire other basic goods and services, including water, food, housing, health care and education, guaranteed by other human rights.

38. A vast majority of the population do not have access to adequate sanitation; access depends not only on geographic location but also on wealth, which is distributed unevenly in Kiribati. One study indicates that 20 per cent of the households and almost 25 per cent of the population may live below the national minimum cost of living or basic needs poverty line.²² Poor citizens living in the outer islands already spend 50 per cent of their budget on imported food, as Kiribati imports most of its food due to the highly permeable atoll soils. Therefore they have little money left for sanitation services, despite government subsidies for the transport of food to the outer islands. Under such extreme poverty, open defecation is considered by people as necessary and culturally accepted. While the National Water Resources Policy sets “inequities in provision of services to schools, hospitals, clinics, rural, outer island and urban communities” as one of the priority issues to be addressed (p. 6), the National Sanitation Policy does not explicitly set “improved sanitation facilities in outer islands” as a priority.

39. There have been efforts made by donors. The Asian Development Bank approved a loan for a sanitation project to improve the existing sewage and sanitation services and hygiene practices in South Tarawa. The KIRIWATSAN project, funded by the European Union and implemented by UNICEF and the Ministry of Public Works and Utilities, for instance, is focused on improving access to water and sanitation and reducing waterborne diseases on the outer islands of Kiribati. The project includes hydrogeological assessment and design, rainwater harvesting and community mobilization and capacity-building.

5. Acceptability

40. The human right to sanitation requires that sanitation facilities and services be culturally acceptable, so as to ensure that they are not rejected by the population and that they are effectively used. Awareness-raising and education campaigns often have to be undertaken, in order to dissipate existing taboos or stigma related to sanitation. In Kiribati this was the case in relation to composting toilets. In the late 1990s, more than 150 composting toilets were constructed on Christmas Island by AusAID, but they did not operate well and the community preferred flush toilets. A composting toilet is a dry toilet; in such systems, organic solid waste is decomposed in moist conditions, producing humus. In Kiribati, however, it is considered a taboo to use human waste to fertilize soil. Hence, the pilot project to introduce composting toilets on Christmas Island and South Tarawa has to date not been well received by the people.

41. Composting toilets reduce water demand significantly, and contribute to protecting precious water sources from being contaminated by wastewater. In addition, compost will be a great help to agriculture on atoll islands where the soil is very poor. As in the case of Tuvalu, where a similar acceptability obstacle was found at the beginning of an eco-sanitation project, but where an awareness-raising campaign is helping change people's perceptions, Kiribati should carry out wider and participatory discussions on the solutions that will be most suitable and sustainable for them, and consider dry sanitation as an option.

²² Kiribati National Statistics Office and United Nations Development Programme Pacific Centre, “Kiribati – analysis of the 2006 Household Income and Expenditure Survey” (Suva, 2010).

C. Hygiene

42. A study by the Ministry of Health and Medical Services showed that the direct cause of infant and child mortality was not necessarily water quality but rather behaviours such as the lack of hand-washing habits and the unhygienic practices followed in caring for babies. Over 80 per cent of households boil drinking water, but store it in open containers; the water is thus immediately re-contaminated when unclean vessels and hands are dipped into it. The widespread practice of open defecation also contributes to the spread of disease by increasing the risk of direct contact with human excretions. Safe sanitation and behavioural change are key to efforts to reduce infant and child mortality. The Government is urged to speed up the integration of sanitation responsibilities into the Water Unit of the Ministry of Public Works and Utilities. This also entails, of course, providing the necessary human and financial capacities, since the Water Unit is currently very small and has a limited budget.

V. International assistance for the development of Kiribati

43. The economy of Kiribati relies heavily on international aid. For example, it is estimated that official development assistance accounted for 15 per cent of the GDP per capita in 2010 (US\$ 229 of US\$ 1,519).²³ In Kiribati, there are two donor coordination mechanisms: the Development Coordination Committee within the Ministry of Finance and Economic Planning; and the donor coordination meeting among donors. The Development Coordination Committee brings together ministries and aims at coordinating development programmes at the national level. The purpose of the donor coordination meeting, which has taken place biannually, is to coordinate donor programmes. The obvious constraint is that not all the donors are based in Kiribati. In reality many of the cooperation arrangements are decided bilaterally between a donor and the Government, although there is an initiative to organize an annual donor-Government round-table meeting. To address the lack of coordination in the water and sanitation sector, there is an ongoing effort to establish a functional intersectoral national water and sanitation committee as well, which would help coordinate water and sanitation projects.²⁴

44. Kiribati has developed several important policies for the water and sanitation sectors; during the mission the Special Rapporteur met with the governmental officials charged with implementing those policies. In the interviews and discussions, it seemed to the Special Rapporteur that not all of the officials had seen those fundamental policy documents, and that not all were aware of the priority issues contained therein, or the deadlines to achieve the goals. The Special Rapporteur also sensed a lack of ownership over the strategies. Several experts told the Special Rapporteur that often such documents are drafted by external and foreign consultants, since their elaboration is a prerequisite for obtaining certain funding. This outsourcing of the development of policies explains the impression that the Special Rapporteur had during her meetings. As discussed above, civil servants with whom the Special Rapporteur met were not even aware of the priorities outlined in the National Water Resources Policy and the National Sanitation Policy. Currently, the review of these policies is ongoing and government officials are trying to narrow down the priorities. The Special Rapporteur urges the Government of Kiribati to take full ownership and leadership in this process, and calls on development partners to support national ownership and strengthening of capacity.

²³ World Bank Data, available at <http://data.worldbank.org/indicator/DY.OA.ODAT.PC.ZS/countries/KI?display=graph>.

²⁴ Such a committee apparently met once in 2010 to discuss adaptation strategies.

45. The Special Rapporteur encourages the Government to take the opportunity of the current review to identify more targeted and achievable priorities. Such an exercise undertaken by the Government itself will enable it to take ownership of its own policies and to translate its commitment into actions. The international community should continue to support such efforts led by the Government, and ensure the full ownership of decisions taken by the Government of Kiribati itself when it comes to implementing the human rights to water and sanitation. The international community should take a coordinated approach to decide on their support based on the priorities identified by Kiribati.

VI. Impact of climate variability and climate change on the rights to water and sanitation

46. The Special Rapporteur paid particular attention to the impacts of climate change on the enjoyment of the human rights to water and sanitation. She has been encouraged by Human Rights Council resolution 10/4, in which the Council urged relevant special procedure mandate holders to give consideration to the issue of climate change within their mandates. Kiribati is one of the five countries and territories in the world comprised entirely of low-lying atolls (see para. 2 above). As noted above, the atolls are only a few metres above sea level, which means that most of the people are directly exposed to extreme weather events intensified by climate change. It is estimated that, without appropriate adaptation measures, 25 to 54 per cent of the land areas of South Tarawa and 55 to 80 per cent of land areas in North Tarawa could be inundated by 2050.²⁵ The inundation, coupled with loss of land and a possible decrease in rainfall due to weather changes, will have a negative impact on groundwater resources, which are already very vulnerable. According to the environmental vulnerability index developed by SOPAC and the United Nations Environment Programme,²⁶ Kiribati is one of the top 10 most vulnerable nations in the world. This means that the environmental conditions to which Kiribati is exposed can negatively influence the sustainable development of the country.

47. In addition, Kiribati is among the 49 countries categorized by the United Nations as least developed countries.²⁷ Between 2000 and 2002, Kiribati experienced a population growth rate of 1.7 per cent, while the GDP growth rate was only 1.4 per cent. This underdeveloped financial capacity with a rapidly growing population makes it a further challenge for Kiribati to take measures to mitigate and adapt to adverse impacts of climate change. Furthermore, according to estimates contained in a World Bank study from 2000, without adaptation measures, by 2050 the Tarawa atoll alone may face annual damages of US\$ 8 million to 16 million, as compared a GDP that was only US\$ 47 million in 2000.²⁸ This estimate includes a loss of US\$ 1 million to 3 million related to water resources negatively affected by climate change.²⁹

48. The impacts on people include health issues related to the quantity and quality of water supply and poor sanitation and hygiene. With a likely increase in average temperature, diarrhoea-related hospitalizations could increase by 1.9 to 9.0 per cent in

²⁵ International Bank for Reconstruction and Development/World Bank, *Cities, Seas and Storms: Managing Change in Pacific Island Economies*, vol. IV (2000), p. 3.

²⁶ The environmental vulnerability index was developed through consultation and collaboration with countries, institutions and experts across the globe. It is designed to be used with economic and social vulnerability indexes to provide insights into the processes that can negatively influence the sustainable development of countries.

²⁷ Department of Economic and Social Affairs, list of least developed countries. Available from www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf.

²⁸ International Bank for Reconstruction and Development/World Bank, *Cities, Seas, and Storms*, p. 20.

²⁹ *Ibid.*, p. 4.

Kiribati, according to a UNICEF estimate.³⁰ Sea level rise will also increase diarrhoea risk, particularly in urban areas, related to the spread of faecal matter by increased and more frequent wave action.³¹ Children are the most at risk of climate-related diseases and malnutrition, according to WHO.³² Adolescents will also be physically and psychologically affected by stress and uncertainty on livelihoods, employment opportunities and possible emigration. About 41 per cent of the population in Kiribati is under 20 years old according to a 2009 national census, and approximately 1,700 young people enter the job market annually.

VII. Adaptation

49. Adaptation in a small atoll island country is a technical and financial challenge. Nevertheless, the State's obligations related to the right to water include a duty to "adopt comprehensive and integrated strategies and programmes to ensure that there is sufficient and safe water for present and future generations".³³ That may include impact assessments of threats that may impinge on water availability, such as climate change. Kiribati signed the United Nations Framework Convention on Climate Change in June 1992; the Convention entered into force in Kiribati in May 1995. The State developed the National Adaptation Program of Action (NAPA)³⁴ under the Climate Convention framework; the document contains proposals for nine projects, the top two priorities being a water resources adaptation project and simple well improvement. Even though these projects addressed some of the elements that form the normative content of the human right to water, such as safety, NAPA did not explicitly incorporate the human rights to water and sanitation, thus failing to address some of the other elements, such as accessibility and affordability.

50. Adaptation projects, such as KAP, are based on the Kiribati Development Plan as well as on NAPA. Thus, KAP also lacks a comprehensive approach to water and sanitation issues, although it is positive that KAP focuses on so-called "no regrets" environmental management, such as water resource management, coastal zone management and vector-borne disease control measures, rather than structural adaptation solutions such as seawalls.

51. In the view of the Special Rapporteur, NAPA, KAP and other adaptation plans should place the human rights to water and sanitation in the centre in order to respond to people's actual needs without discrimination. This does not mean that every individual should receive the same treatment. On the contrary, this means that the Government should tailor solutions for people in different situations, from people living in high density informal settlements on South Tarawa to those on very remote outer islands. While an initiative for well improvement on outer islands has been identified as one of the priority projects, it is a relatively small project and particularly vulnerable islands or regions or disadvantaged groups of people are not explicitly targeted. The Government is encouraged to look at social and economic aspects of adaptation, with a focus on people's specific needs rather than mere technical and infrastructural adaptation.

³⁰ UNICEF, *Climate Change Impacts on Children in the Pacific: Kiribati and Vanuatu* (2011), p. 18.

³¹ *Ibid.*, p. 21.

³² WHO, "Climate Change and Health", Factsheet No. 266 (2012).

³³ Committee on Economic, Social and Cultural Rights, general comment No. 15 (2003) on the right to water, para. 28.

³⁴ Available from <http://unfccc.int/resource/docs/napa/kir01.pdf>.

1. Implementation of adaptation

52. President Anote Tong has been on the forefront of advocacy regarding the adverse effects of climate change on small islands, bringing it to the attention of the international community. The President advocates, among other things, the concept of “migration with dignity”, not hesitating to speak about the likelihood that all citizens of Kiribati will eventually have to be relocated to other countries. The President’s policy refers to, *inter alia*, measures such as improving the professional skills of I-Kiribati to a competitive level in the international labour market. The Office of the President is taking the lead on climate change issues domestically as well.

53. While the Special Rapporteur respects and welcomes advocacy efforts made by the President, she observed that the Government’s commitment to address the effects of climate change at the international level was not being fully translated into practical actions to improve the enjoyment of human rights by I-Kiribati, including access to water and sanitation. The Government of Kiribati is small, and the few senior government officials are constantly on trips abroad to raise awareness of the challenges that the country is facing and to call for international support. Such efforts are essential, but the Special Rapporteur is concerned that they need to be balanced with attention to providing leadership and guidance for the government officials left in the country to implement the country’s strategy and plans of action for the provision of water and sanitation.

2. Participation

54. As the President himself publicly discusses, studies show that the relocation of at least some communities affected by climate change to less exposed areas, including to areas outside of Kiribati, is likely to be inevitable. International emigration itself is not new to I-Kiribati, as they seek education and job opportunities in other countries in the Pacific region. New Zealand, for instance, accepts 75 Kiribati citizens every year and grants them residency under the Pacific Access Category quotas. In 2009, following the United Nations Climate Change Conference in Copenhagen, the Foreign Minister of Fiji reportedly expressed his country’s intention to consider accepting “climate change refugees” from Tuvalu and Kiribati in the future. Reportedly, the Government of Kiribati has recently entered into talks with the Government of Fiji to buy about 6,000 acres of land on the main island of Fiji. The potential relocation of citizens of one country to an island in another country’s territory has several implications with respect to the enjoyment of human rights by those relocated, including their rights to essential access to basic services and to nationality. The legal status of the potentially displaced population is unclear, as there is no precedent; it will depend entirely on an agreement between the Government of Kiribati and a host State.³⁵ While the President claims that relocation would be a last resort, the Special Rapporteur strongly encourages the Government to make the relevant information widely available in accessible formats for everyone, including women, children and people living on remote outer islands, so that they can prepare themselves to make their own decisions.

55. In Kiribati, 40 per cent of the population are under 20 years old; they are the ones who may face resettlement inside or outside their own country. Although Kiribati has a strong traditional structure in decision-making, the engagement of young people and children in climate change discussions and adaptation activities has been a positive development. NAPA, for instance, is one of the few plans in the Pacific region that emphasizes the importance of involving children in decision-making processes. Under KAP, national consultations on adaptation and awareness-raising activities were carried

³⁵ See Susin Park, “Climate change and the risk of statelessness: the situation of low-lying island States”, Legal and Protection Policy Research Series (United Nations High Commissioner for Refugees, May 2011).

out. Capturing the voice of marginalized people in Kiribati is possible, but expensive and time-consuming due to the remoteness of the outer islands. The Government budgets currently do not include costs for such national consultations, but the local government structures, Island Councils, and social service staff and support groups on most islands provide a system through which national activities can be conducted. A UNICEF study indicates that the capacity of the Government of Kiribati to include children in adaptation planning “may not be sufficient”.³⁶ For instance, children outside of the school system have limited access to information on climate change, as climate change education is primarily carried out in school. Children’s workshops on climate change conducted by UNICEF showed that many children were aware of the physical impact of climate change, but less so of the impact on their health or of preparation.³⁷

56. The Special Rapporteur recommends that States ensure the active, free and meaningful participation of rights holders and other relevant stakeholders. In particular, States should ensure the participation of those whose rights appear most directly threatened; in the case of Kiribati, these include children, as well as women, who are usually responsible for collecting and treating water. Although some consultations were made in the framework of NAPA and KAP, the process of participation should be specifically planned, financed and implemented, rather than carried out in an ad hoc manner, and should include public officials; service delivery organizations; technical specialists in climate science and policy, water and sanitation; civil society organizations concerned with water and sanitation; and community-based organizations. The State should also establish clear agreed minimum standards for participation and develop appropriate capacity-development strategies in order to help make participation effective. Civil society organizations with whom the Special Rapporteur met shared their view that people, particularly women on outer islands, have been excluded from the development of adaptation planning and strategies; some of those excluded have been reported as saying “we will die here” or “we accept that we are going to die here”.

VIII. International responsibility

57. Several studies have indicated that adverse effects of climate change threaten the enjoyment of many human rights. Many States Members of the United Nations have recognized this fact.³⁸ But not all of the effects of climate change on human rights are waiting to be felt in the future. Some vulnerable individuals and communities around the world are already experiencing the effects.³⁹ Indeed, the Special Rapporteur observed that the effects of climate change are not a future threat but a present reality for I-Kiribati; for many in Kiribati, under such circumstances, the deprivation of access to safe and sustainable water and sanitation, which constitutes a human rights violation, is part of everyday life.

58. To comply with their international obligations in relation to the rights to water and sanitation, State parties must also respect the enjoyment of those rights in other countries.⁴⁰

³⁶ UNICEF, *Climate Change Impacts*, p. 32.

³⁷ *Ibid.*, p. 29.

³⁸ See Human Rights Council resolution 10/4 and the summary of discussions of the Human Rights Council panel discussion on the relationship between climate change and human rights, held on 15 June 2009. Available from www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/HRClimateChangeIndex.aspx.

³⁹ Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights (A/HRC/10/61), para. 93.

⁴⁰ Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002) on the right to water, para. 31.

In the case of the effects of climate change, establishing an accountability mechanism is a challenge because it can be difficult to attribute a climate-related violation of human rights of a specific population to specific actions (A/HRC/10/61, para. 96).

59. For further discussion, please refer to the section on international responsibility in the report of the Special Rapporteur on her mission to Tuvalu (A/HRC/24/44/Add.2).

IX. Conclusion and recommendations

60. The Special Rapporteur witnessed the grave challenges that Kiribati is facing due to its remoteness, the very significant distances within the country, its unique geography and environmental vulnerability, the growing population in South Tarawa, and the scarcity of natural and financial resources. Access to water and sanitation is an acute concern, as the limited availability of fresh water and the limited capacity of safe wastewater management are being and going to be further aggravated by adverse effects of climate change. It is essential to take urgent action to protect and conserve the groundwater resources in order to ensure sustainable water supply, particularly in South Tarawa. System and other losses are extremely high, and rainwater harvesting must be implemented to the maximum capacity. Kiribati should establish a legal framework to conserve the precious groundwater resources and review the National Water Resources Policy to set realistic priorities.

61. The Special Rapporteur advises the Government not to concentrate all efforts on one single solution to address the water scarcity challenges, but rather to diversify measures. This will contribute to both affordability and sustainability.

62. During her mission, the Special Rapporteur was shocked by the high infant and child mortality rates of the country. In order to significantly reduce preventable deaths of children, the country must address the essential issues of sanitation and hygiene as a matter of urgency. The first step is to explicitly assign competences over sanitation to a government department and provide it with the necessary human and financial resources. The specific plan and budget should take into account awareness-raising activities, since behavioural change is the key to improving hygiene. The impact of climate change will hit this remote country, consisting of small atoll islands, hard – the people are directly exposed to extreme weather, and the Government has very limited financial and human capacities to adapt to it. The international community has worked hard to help provide support; however, its uncoordinated approach with respect to Kiribati hampers the ability of the country to process international aid and prevents it from taking ownership over development and adaptation plans.

63. In this regard, the Special Rapporteur recommends that:

(a) The Government, which bears the main responsibility for the realization of the human rights to water and sanitation, take concrete and targeted steps within the maximum of available resources, including by seeking international cooperation aid and assistance;

(b) The Government of Kiribati establish a solid legal and institutional framework to implement the human rights to water and sanitation taking into consideration changing climate and its impacts on water and sanitation. Clear responsibilities in the water and sanitation sectors – including the establishment of a regulator who is independent from the Government – must be allocated at the national level;

(c) The Government of Kiribati take greater ownership of its policies and priorities for the water, sanitation and hygiene sector and integrate donors' initiatives and funds into its plans and activities, in order to ensure greater sustainability of interventions and impact on the lives of I-Kiribati;

(d) The international community consider positively the provision of on-budget rather than off-budget assistance in order for Kiribati to take greater ownership of measures adopted to provide water and sanitation services;

(e) The Government diversify measures to address the water scarcity challenges rather than concentrate all efforts on one single solution. Reduction in system and other losses, the preservation of groundwater resources and the improvement of rainwater harvesting should be made priorities. This will contribute to both affordability and sustainability;

(f) The Government make the reduction and eventual elimination of open defecation its urgent priority in order to protect people's right to sanitation in a dignified manner and also to avoid preventable deaths of children;

(g) The monitoring of water quality be regularized through legislation, and that the budget for such monitoring be included in the budget of the Government as one of the core activities to ensure regular testing;

(h) "Hardware" provided by donors in the form of project funding be accompanied by equally relevant "software" measures, namely information and awareness-raising regarding the maintenance of the desalination plants, if implemented, and the importance of hygiene practices, which must be ensured even after the completion of a given donors' project;

(i) Access to water and sanitation be affordable to all, in particular to those who have a lower income. The price paid for water, sanitation and hygiene must not compromise access to other human rights such as food, housing or education. The Government should bear this in mind when discussing and adopting new water tariffs in relation to the instalment of desalination plants or when discussing sanitation options;

(j) The Government of Kiribati, the international community, civil society and communities continue to explore the most suitable and sustainable sanitation options, including composting toilets, which will not only enable water savings, but will also avoid many of the problems caused by inadequate wastewater management;

(k) Adaptation plans should put the human rights to water and sanitation at the centre in order to respond to people's actual needs without discrimination. International assistance to adaptation should therefore also be based on such plans that mainstream the human rights to water and sanitation;

(l) Kiribati ratify the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights and other international human rights treaties to which the State is not yet a party;

(m) The Government of Kiribati withdraw its reservations to the Convention on the Rights of the Child, in particular article 24 (c), which places a specific obligation on the State to combat disease and malnutrition by providing clean drinking-water;

(n) Kiribati consider revising the Constitution and including the human rights to water and sanitation as well as other economic, social and cultural rights which are contemplated in the Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights. Kiribati is also

encouraged to consider broadening the concept of discrimination contained in its Constitution, so as to reflect international norms and consensus on this matter;

(o) The Government of Kiribati implement the recommendations of the universal periodic review of the Human Rights Council held in 2010. Special attention should be given to the recommendations referring to gender equality and discrimination against women; women's participation; and the establishment of a national human rights institution. With respect to the implementation process, the Government of Kiribati is encouraged to seek technical assistance from the relevant United Nations agencies, programmes and funds present in Kiribati and the office of the United Nations High Commissioner for Human Rights based in Suva.
