

DRAFT

KIRIBATI NATIONAL ASSESSMENT REPORT

for the

5-Year Review of the Mauritius Strategy for Further Implementation of the Barbados Programme of Action for Sustainable Development of Small Islands Developing States (MSI+5)

MINISTRY OF FINANCE AND ECONOMIC DEVELOPMENT

BAIRIKI, TARAWA

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1. INTRODUCTION

This report is the outcome of the review of the implementation of the Mauritius Strategy for the further implementation of the Barbados Programme of Action for the Small Islands Developing States in accord with the United Nations General Assembly Resolution No. 63/213.

The review exercise carried out through December 2009 to January 2010 involve consultation with key stakeholders to assess the progress of implementation of the MSI at the national level and essentially focused on national actions contained in the Kiribati development plan/strategies relevant to the MSI objectives, goals and commitments.

Section 2 cover the National Sustainable Development Strategy with overview of the national social, economic and political context and national development planning process. Section 3 is the main part of the report on the review of the progress in the implementation of the sectoral areas and cross-sectional areas of the MSI. Section 4 is an account of the impact of the global crises and Kiribati's response. The last section lists the major development issues and challenges and recommended policies critical to enhance sustainable development for the future.

2. NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY

(i) Social, Economic and Political Context

A recent report produced by the Asian Development Bank (ADB)¹ presents a succinct description of the salient features of Kiribati's economic, social, political and environment situation. What follows is largely taken from that report supplemented with updated analysis from other sources to set the context of this review.

The Nation. Kiribati is small and remote, and spread over a vast area of the Pacific Ocean. Twenty atolls and one raised island are inhabited with a total land area of 726 square kilometers (km²). Together with another 12 uninhabited atolls, the islands are surrounded by exclusive economic zones encompassing 3.5 million square kilometers (km²) of ocean stretching 5,000 km from west to east and 2,000 km from north to south.

Since becoming independent in 1979, Kiribati has built a reputation for political stability and fiscal prudence while confidently pursuing its own path in regional and international relations. Its assurance in external affairs has reflected a strong sense of national identity and a distributive approach to domestic wealth and well-being. Government finances have been underpinned by a

¹ Kiribati Social and Economic Report 2008: "Managing Development Risk", Asian Development Bank

reserve fund four times larger than gross national income, built up by pre-independence taxation of phosphate mining and successful investment overseas. Kiribati also has attracted substantial external aid from bilateral and multilateral sources. Nonetheless, economic activity is constrained by isolation, sparse resources, and a fragile environment.

The People. The people of Kiribati are by nature hardy, egalitarian, and conservative. Land is scarce in Kiribati and land-based resources are sparse. Language and culture reflect a strong affinity to the sea. The population of Kiribati was 92,533 at the 2005 census, just over 8,000 more than the 2000 census total. This represented an average yearly increase of 1.8% - currently equivalent to about 1,750 people. The two urban centers accounted for about 50% of the total, with South Tarawa, the capital and main center, comprising 44%; and Kiritimati, almost 6%. The previously strong migration to South Tarawa has slowed somewhat, but population in Kiritimati has continued to grow rapidly. The population density in South Tarawa, at 2,558/km in the 2005 census, was about 20 times the national average of 127.

The population is young, with a median age of 21, and remarkably mobile. Movement has been chiefly around and between the Gilberts Group and the Line Islands. Several hundred I-Kiribati emigrated in 2000-2005, mostly to New Zealand. Emigration for work and permanent residence is expected to grow.

The Economy. Kiribati consumes far more than it produces and imports far more than it exports, paying for the difference with foreign income. The public sector dominates the economy, accounting for more than half of estimated gross domestic product (GDP). The general level of demand is largely determined by the government's recurrent budget. Half of that budget is funded by access license fees paid by foreign fishing vessels to catch tuna in Kiribati's exclusive economic zones and by earnings of Kiribati's reserve fund invested in overseas financial markets.

Total demand draws in close to \$100 million of imports yearly, while yearly exports of goods are valued at around \$5 million. The balance of payments current account is sustained by factor income from abroad (i.e., tuna vessel fishing licenses, seafarers' remittances, and investment earnings) and grants received by government, churches, and other nongovernment organizations.

Gross national income – which includes factor income from abroad - averaged \$159 million, or \$1,758 per capita, in 2002-2006. This is close to double the value of domestic output of goods and services (i.e., GDP), which averaged \$947 per capita in the same period. Excluding foreign aid for development projects and private capital inflows (the latter are very small), almost 50 cents of every dollar spent in Kiribati originates in factor income and transfers from abroad.

(ii) National development planning process

Kiribati has, since achieving Independence in 1979, used a series of medium term development plans to formulate and set out the goals, priorities, and strategies for the economic, and social development of the country and people during the plan period. The current Kiribati Development Plan (KDP): 2008 – 2011 is the eighth in the series. The other plan document relevant to the MSI+5 period is the National Development Strategies (NDS): 2004-2007.

As most of the plan periods coincide with the 4-year term of the elected governments the policy statements of the respective governments often guide and set the overall aim of the development plans. But, the plan formulation process also involves extensive consultation with and among the key stakeholders and technical analysis of important performance indicators to inform the setting of a strategic plan for the respective plan periods.

An important feature of the more recent plans is the greater attention accorded to the implementation and performance-monitoring arrangements that are incorporated in the plan documents and are being implemented more vigorously now by the KDP Task Force, comprised of senior managers of the government ministries and departments and the public enterprises and serviced by a technical working group from the Ministry of Finance and Economic Development. The KDP indicators are being aligned to the MDG indicators, the MSI indicators, and other international and regional plan indicators.

The NDS: 2004 - 2007 has as its theme “*Enhancing Growth and Ensuring Equitable Distribution*” The theme is adopted from the Government’s Policy Statement on taking office, which, as for previous plans, also sets the overall aim of the NDS. The NDS sets the policies in a strategic planning framework to direct attention to available resources, the external environment and the interconnectedness of policies and strategies across the economy and over time. The plan document highlights that “strategic plan is consistent with the commitment of Kiribati to the UN-adopted MDGs”

The major national development concerns of the plan were organized into 6 Key Policy Areas (KPAs) of (i) economic growth, (ii) equitable distribution, (iii) public sector performance, (iv) equipping people to manage change, (v) sustainable use of physical resources, and (vi) protecting and using financial reserves.

The theme of the current KDP: 2008 - 2011 is; “*Enhancing Economic Growth for Sustainable Development*” with a stated vision of creating “*a vibrant economy for the people of Kiribati*”. In its foreword the Minister of Finance and Economic Development said that the vision reflects what government is all about; “*it is for the people and to ensure that the benefit derived from growth is felt and enjoyed by all the people*”.

The Key Policy Areas of the current plan, in order of priority, are (i) human resource development, (ii) economic growth and poverty reduction, (iii) health, (iv) environment, (v) governance and (vi) infrastructure. The plan document states that the main thrust of Government's policy which is 'economic growth for the people and by the people' is encompassed in the KPAs.

With varying degree of emphasis in the plans, the stated development strategies of Kiribati during the period from 2004 - 2011 can be summarized as follows:

- Economic growth and poverty reduction;
- Human resource development;
- Private sector development and employment creation through greater public-private partnership;
- Trade promotion and diversification of the export base;
- Social services development;
- Environment protection and conservation;
- Good governance; and
- Infrastructure development.

All of the set objectives and the adopted strategies are in line with the commitments, goals, and targets of the MSI, the Millennium Development Goals (MDGs), and the Pacific Plan.

3. ISSUES OF CRITICAL IMPORTANCE

I. Climate Change and Sea-level rise

The "environment" as defined in the Environment Act includes the natural, social, and cultural systems; their constituent parts and aspects; and their interactions. Associated with the interactions, there will be feedbacks to the natural, social and cultural systems and these will be reflected in the assessment of reduction of vulnerability and protecting the environment.

Kiribati has tried for many years to come to grips with environmental management by establishing a technical department in the ministry dealing with natural resources development initially and later moving the department to the ministry dealing with lands and agriculture, the

Ministry of Environment, Lands and Agriculture Development (MELAD). The policy and operational synergies are obvious. Environment officials have struggled, however, with their multiple roles as advisers, regulators and enforcers.

Passage of the Environment (Amendment) Act, 2007 has given the Government more scope and powers to plan, manage, and regulate activities impacting the environment. Officials are well aware that they need to carry public opinion with them and they are devoting much more effort to public consultation, use of the media, and visits to build rapport with communities. MELAD plans to expand on several fronts adding specialist positions in climate change planning, waste management and biodiversity and conservation; undertaking initiatives involving volunteers in wetlands improvement, coastal zone management, and public parks cleaning. At the same time MELAD will need to keep abreast of the considerable ongoing regional and global activity in environment management.

As a signatory to the United Nations Convention on Biodiversity, Kiribati actively tries to fulfill its commitments. An important and high profile development in this area is the establishment of the Phoenix Islands Protected Area, the largest marine protected area in the world.

Few countries are more vulnerable to the predictable effects of climate change than Kiribati. Not many countries of comparable size have done more to prepare themselves for it in terms of raising awareness, engaging local and overseas advisers, and participating in international consultations including the Copenhagen COP 15. Climate change manifested through higher sea levels and temperature is all encompassing and in an atoll country there is no escaping it, nowhere to retreat to.

There are numerous challenges facing Kiribati in dealing with climate change. The national policy and strategy to address the issue of climate change are defined in the Government Policy Statement on Climate Change. The following are key excerpts:

Kiribati Policy Statement on Climate Change

As Kiribati cannot escape climate change it must adapt to it. The adaptation process needs to give people the best possible chance of living decent lives during and beyond the period of climate change now foreseen. As the impact of climate change reach into all aspects of life in Kiribati, broad public consultation and participation in planning and implementation are needed for sustainable responses. Many department of government are involved, requiring both central policy coordination and clear delegation of responsibility for action. And as the precise speed and extent of future climate change is unknowable, adaptive responses themselves need to be risk risk-minimising, flexible and progressive.

The institutional set up for national management of climate change is being reviewed to ensure better coordination and coherence in the implementation of the National Adaptation Programme

of Action (NAPA) and the Kiribati Adaptation Project (KAP) that are administered now under different departments.

II. Natural and Environmental Disaster

Disaster has various meanings across ministries and government officials. A Natural Disaster Act 1993 defines it as “actual or imminent occurrence of an event which endangers or threatens to endanger the safety or health of any communities or persons in Kiribati, or destroys or damages, or threatens to destroy or damage, any property in Kiribati”. Hazard is the cause of disaster, and for climate related hazards these can include cyclone, flood or tidal waves, drought, and downstream effects such as plague or epidemic. Epidemic may also be considered as non climatic disaster, other hazards in this category include civil accidents such as fire, but in most cases, the weather during the time of the occurrence of any such accidents is a relevant factor for the severity of the disaster.

Responsibility for disaster risk management is under the Office of the President (OB).

There is no disaster plan, but within the OB there is established a National Strategic Risk Management Unit (NSRMU).

The weather will always be a factor to consider during the occurrence of any disaster. It is also a hazard causing disaster in its extreme conditions. From the work of KAP I, it has been considered that hazard and risk management (related to the weather) are part of climate change adaptation. As will be evidence below, this can lead also to oversight of current disasters.

KAP I also recognized that population is a factor that contribute to the notion of vulnerability to any disasters. Population issues are also to be included in matters for which the NSRMU should be responsible.

The MELAD has also followed the trend of the vulnerability of Kiribati from extreme weather conditions, including their impacts on sea level and wind set up waves. This was not routine, undertaken outside official working hours, but it started in 2001.

More recently, the OB has followed up with this work. Storm surges and coastal flooding have continued to occur. On one occasion, the OB invited submissions from people on description and the costs of damage. But there was no assistance offered because the disaster was considered not a national catastrophe. Certain communities went without clean potable water for few days.

New phenomenon of disastrous impacts appeared to become more evident. A kind of tsunami wave was experienced on one island (Marakei) in 2009. On part of South Tarawa similar

behaviour of the sea, though not of magnitude as felt on Marakei, was noticed. On investigation, it was explained that the tsunami like waves were the result of a dissipating propagation of storm surges and wind set up waves that were occurring at the island countries in the north and the south of Kiribati.

It was not a tsunami. But subsequently in the same year there was a warning of tsunami issued by OB. Schools were closed, and all government offices were closed for the day. There was panic, but the tsunami never appeared. However, from data provided by KMS and available NIWA Tidal prediction, MELAD assessed the impacts on the sea level and it appeared that there could be a difference of about 40 cm around that time.

KMS continue to issue early warning on prediction of sea level, and to provide climate prediction of three months for rainfall. The increasing frequency of coastal flooding and destruction of coastal defenses has made people to pay attention to the former. It is not clear whether the same applies to the latter. There is, however, irregular issuing of daily forecasts and outlooks.

The Disaster Act needs to be implemented. Perhaps the NSRMU of the OB needs to focus on the implementation of this Act.

Because climate related disaster is considered as climate change impact, addressing this type of disaster is a form of adaptation. So adaptation has become also the responsibility of the NSRMU, and it undertakes this responsibility through the activities of KAP II. Overseeing or engaging in KAP II activities can divert attention from focusing on what to do to be prepared for and assist in the rehabilitation after any disaster hit.

The definition of “disaster” reaches down to the “community or persons” unit. The community may be identifiable with specific settlement areas. And for climate change, vulnerability is considered as site specific. There are communities that have suffered from storm surges and waves flooding their houses, groundwater wells, bwabwai pits, and agricultural gardens. However, public infrastructure has also suffered.

Government protects public infrastructure but it is left to individuals and communities to protect their own assets. This is probably not the intention in the Act. The challenge is to provide or strengthen arrangements for communities to be prepared for, and to be rehabilitated after the disaster hit. The challenge is huge, and can only be achieved by involving many, if not all government ministries, and private sector.

The first step could be the establishment of a National Disaster Council as required in the Act.

Kiribati once declared a state of emergency on account of drought experienced. And as noted above, a tsunami warning and closing of schools and public offices was once issued. In the first case, a response included a technical assessment of the groundwater lens supplying South

Tarawa by external scientists who found it to be adequate. In the second case, there was no tsunami. These may indicate a need to give more attention to disaster risk management as stipulated in the National Disaster Act.

Vulnerability to current climate related disasters is expected to be exacerbated in the course of time with climate change. Thus, to be able to address any such disaster now will reduce the vulnerability and increase the capacity to adapt to later similar disaster but exacerbated by climate change and sea level rise.

Current climate related disasters, regularly occurring but facing only few communities, become obscured and receive less attention because the broad scope of adaptation to climate change impacts attracts all attention.

There is a need to give more attention to disasters experienced at community level, and at the same time mindful that adaptive capacity of the community is thereby enhanced. And conversely while planning and preparing for adaptation to climate change, and piloting adaptation measures, this at the same is contributing to reduce the current risks of disasters to the community. There could be overlaps and gaps but these may be sorted out by more effective redistribution of national efforts.

Perhaps separate financial resources should be made available. One is for addressing community level hazard, and another for planning, preparing, and piloting of adaptation measures.

There were desalination plants that were supplied at the time when Kiribati declared the state of emergency due to drought. In fact several islands suffered, and especially Banaba which depends solely of rainwater. Institutions such as the government owned hotel did not have enough water and a desalination machine was used.

Apart from the warning issued for the tsunami which was never noticeable, there was no advice as to what people have to do. People reacted in several ways including going to the widest part of South Tarawa, going to the highest buildings which are simply two story level, climbing coconut trees and other trees, going to the beach where there are boats, and keeping close other floaters.

OB was standing by, so as the KMS, and also MELAD and other Ministries. Each Ministry use their own best judgment as to what should be their roles and how to carry them out. Again this stresses the need for a disaster management plan and for a more comprehensive and inclusive implementation of the National Disaster Act.

The National Red Cross was part of a team that went to Marakei to survey the damage from the unusual high waves that swept much of the settlement. OB was able to survey the extent of the damage.

Climate related disasters are uncontrollable, compared to those of other disasters such as oil spills, spread of agricultural pests, fire, or epidemic of serious diseases. Among the latter types

of disasters, some are usually prevented by management mechanisms that minimize chances that they would occur. For example, quarantine regulations on importation of agricultural products in the case of the spread of pests.

The trend in climate related disasters at the community level are evidently increasing. Early warning on the sea level predictions as being started is useful and should reduce the likelihood of disasters.

However, without reinforcing policies and programs on disaster prevention and rehabilitation, there would be many communities who would not be able on their own to prepare for disaster. For example, mangroves replanting and revegetation of exposed settlement areas could assist in preventing disaster from storm surges and wind set up waves.

Contingency plans for any national disaster are required. The National Disaster Act needs to be implemented, and the strengthening of the national institution to manage the whole range of disasters is required.

III. Management of Wastes

Pollution from solid waste, liquid and hazardous/toxic waste is widely recognized as one of the major threats to human health and the environment and thus sustainable development in Kiribati and has direct influence on the quality of people's lives. Poor waste management is one of the major environmental problems in Kiribati, particularly in South Tarawa. As with regards to solid waste, study reports on waste characterization of domestic waste since 1994 found that the bulk of the waste stream is organic waste and the general trend indicates an increase in use of plastics, paper and metal and decrease in organic waste.

One of the important Kiribati environmental documents, the Kiribati National Environmental Management Strategy (NEMS) recommended five key strategies for attaining sustainable development in Kiribati. Improving waste management and pollution control was one of these recommendations. Some of the strategies identified to help to achieve this objective were improving management and disposal of solid waste and sewage, and controlling of marine pollution.

The current Kiribati Development Plan (KDP) 2008 – 2011 identified 6 Key Priority Areas (KPA) and environment is one of them. Under the environment one of the strategies is minimizing and controlling waste and pollution. The Environment and Conservation Division under the Ministry of Environment, Lands and Agriculture Development which is the lead government agency entrusted with protecting the environment has developed a National Waste Management Strategy (soon will be endorsed) that covers current waste management issues and their sound disposal management including medical waste and e-waste. There is also the Health-

Care Waste Management Committee now being established to develop a health care waste disposal management plan.

The key Government Ministries involve with the management of solid waste are the Ministry of Environment, Lands and Agriculture Development which deals with waste management strategy, plans and policy and the Ministry of Internal and Social Affairs through the town councils. The latter is dealing with waste collection and disposal. On South Tarawa, there are semi-engineered landfills which were constructed under the SAPHE Project in 2002-3 which are now used for rubbish disposal.

Kiribati continued to invest substantially in the waste management sector. The Government after a few years of implementation reviewed the Kiribati Environment Act 1999 and in 2007 a Kiribati Environment Act 1999 (as amended 2007) was passed in parliament. The amended Environment Act provides a framework on environmental protection including from waste and pollution however it does not directly address the management of hazardous waste. The amended Act also has a provision which requires the sorting of waste from the source. The 'Kaoki Maange' recycling project which exports aluminum cans and wet cell batteries continues to be a success and provides a model both nationally and regionally. Waste oil is exported for recycling in Fiji by the Kiribati Oil company (KOIL).

There were a number of national initiatives or projects over the last few years focused on improving waste management particularly on South Tarawa. Some of these were regional projects coordinated by SPREP and SOPAC in which Kiribati participated in. These include International Waters Project (IWP) coordinated by SPREP from 2003 to 2006. The Kiribati National IWP was focused on improving solid waste management and linking it to protecting the ground water contamination from pollution. Kiribati also participated in the Electronic and Electrical Waste (e-waste) regional project generously funded by the Basel Convention Secretariat and implemented by SPREP in 2007. The project undertook a stock taking and baseline study of e-waste in Kiribati and recommended sustainable solutions including recycling nationally and export overseas. Another promising initiative was a bulky waste bilateral project between Kiribati and SPREP in 2007. The scrap metal removal pilot project was implemented by the Lagoon Motors, a private enterprise, which collected scrap metal on Tarawa and exported it to Asia. The project cleared the island of old wrecks before the implementation of the deposit refund system on bulky waste which the Government is seriously considering based on the recycling concept like the 'Kaoki Maange'.

There is an ongoing Sustainable Town Programme (STP) project funded by NZAID that included the strengthening of the Teinainano Urban Council, Betio Town Council and Kiritimati Island Council. This covers providing necessary training on waste management to the councils and resources.

In addition to land-based activities, the island coastal and marine resources are threatened by shipwrecks, marine accidents and spills, ships' waste and antifouling paints on vessels. There is a National Programme of Action (NPA) to protect the marine environment from land based marine activities project funded by UNEP Global Programme of Action (GPA) on Protecting the Marine Environment from Land-based Activities. The NPA focuses on land-based activities including sanitation impacting the marine environment and proposes national coordinated actions to address the issue. Kiribati also participated in the Pacific Ocean Pollution Prevention Programme (PACPOL) implemented by SPREP with resources from the International Maritime Organisation (IMO). The PACPOL has been designed to develop national and regional capacity to protect coastal and marine environments from ship-related marine pollution. Under the PACPOL there is a National Contingency Plan to Protect the Marine Environment from ship-based marine pollution (NATplan) which is yet to be approved.

On an international front, Kiribati is a party to a number of pollution related conventions including hazardous and toxic chemicals. These include the London Convention 1972 on the control of waste dumping in the sea, Basel Convention on regulating the transboundary movements of hazardous wastes, Waigani Convention on banning the importation into Forum Island Countries of hazardous and radioactive wastes and to control the transboundary movement and management of hazardous wastes within the South Pacific region and the Stockholm Convention a global treaty to protect human health from persistent organic pollutants (POPs). There is generally difficulty to implement the obligations under these agreements due to lack of capacity in various fronts, technical, technological and financial. More efforts are needed through regional and international assistance towards capacity building to implement these conventions. Kiribati is also actively engaged in the on-going negotiation on the new legally binding instrument on mercury.

Despite the gains and achievements on waste management over a number of years, there were also challenges encountered. These are limited available resources including finance, lack of public awareness, lack of enforcement of relevant legislations and limited land for proper landfills to name a few.

Some of the emerging issues with management of waste include improving the management of hazardous related wastes including e-waste, obsolete pesticides, asbestos and health-care waste including the expired pharmaceutical drugs. Also the increasing in number of ship wrecks and the illegal rubbish disposal from visiting boats especially the Asian fishing vessels.

IV. Coastal and Marine Resources

Kiribati has declared it EEZ based on the UNCLOS criteria, but it's has difficulty in meeting the criteria for archipelagic regimes that are considered to be desired for the territorial waters around

each of the groups atolls, the Gilbert, the Phoenix and the Line Groups. This declaration and the chart of Kiribati EEZ is recognized by distant water fishing nations that are licensed to fish in the EEZ, and by neighboring island countries through the multilateral treaties between the Forum Island Countries and certain distant water fishing nations. Kiribati acceded more recently to the UNCLOS, although it has as indicated above complied to the Convention.

Tuna resources are fished by distant water fishing nations in the EEZ after obtaining and paying for fishing licenses, estimated at about 5% of the value of the catch. Non-compliance to the license conditions include suspected under-reporting, the concern about by-catch, and poaching. Kiribati attempts with assistance of major distant water fishing nations operating in Kiribati waters to acquire technical and technological capability to participate in the exploitation of the resources have never been successful.

Like other SIDS, Kiribati is all coastal zone without hinterland. As a result of this human livelihood is much dependent on and imposes grave strains on coastal marine resources, which has been overexploited in certain islands especially in Urban Tarawa with dire consequences on the quality of human life.

Biological diversity is viewed as proxy measures of the quality of the environment and therefore the quality of human life. This is considered realistic in the situation of Kiribati where the subsistent livelihood and human settlements are integral dimensions of the coastal and marine resources. Kiribati is a party to the Convention on Biodiversity and a signatory to the Cartagena Protocol on Biodiversity and is processing its ratification of the protocol.

Traditional skills of the management of the resources, of their harvesting and utilization are part of the consideration of biodiversity. These and the richness of biodiversity are eroding and threat to food security would have been a lot more serious but for the increased dependence on imported food.

Kiribati is participating in a number of regional biodiversity projects including the South Pacific Biodiversity Conservation Programme (SPBCP), National Biodiversity Strategy and Action Plan (NBSAP), NBSAP Add On, and National Biosafety Framework, which are implemented by the Ministry Environment - Conservation Division. They are at sectoral level, and mainstreaming into national planning process remains at the Ministry level particularly where outputs may be similar to those of programmes in the ministry or other parts of the public services. Mainstreaming implies local budget contribution, and it is likely that activities building on outcomes of these programmes on Biodiversity now pursued will eventually be mainstreamed.

Awareness raising, education and research are important components of the programmes. These are pursued with the guidance from the SPREP. The concepts underpinning the activities are new to Kiribati tradition and experience that have been based on smaller populations of the past generations and ever bountiful coastal and marine resources. This is the difficulty faced in public

awareness raising, and education; the audience still live with the passed on memories of the older generations.

Research now focuses on data collection relevant to perceived problems areas such as depleting inshore fisheries, coastal erosion, degrading marine and coastal biodiversity. The data collection is through various methods suited for the particular problem area. These include public consultations, survey interviews for biodiversity, regular routine surveys and reporting fishermen's catches for the fisheries, and regular beach profiling for coastal erosion. Coastal erosion is a serious problem with mangroves ecosystems depleting or encroaching towards the eroded land, and corals are damaged and bleaching.

Endogenous capacity building to be able to design and undertake research programmes on specific areas of biodiversity, and to apply appropriate tools and methodologies of analysis is needed. Current guidance provided through international experts is not sufficient; post graduate training for government officials working on biodiversity programmes is desired.

In all technical divisions of Ministries there are qualified personnel to undertake some research. Their abilities need to be harnessed, enhanced and further developed. An effective mechanism of networking, sharing of information and data is needed. GIS is being developed and the current informal users group can form the ground work for such mechanism. It can complement of activities on biodiversity programmes for which committees exist, although the GIS users group will concentrate on data acquisition and sharing.

Over exploitation of coastal resources, unmanaged wastes and pollution in coastal areas, and the complacency of the communities pose immediate threats to be coastal and marine resources. The communities need to manage their own activities with the aim of minimizing the threats. This is a big challenge, but failing to meet this challenge can only mean a continuing degradation of the environment and the depletion of the coastal and marine resources.

The communities need to be mobilized and advised on what measures they may wish to take for the management of the coastal and marine resources that are immediately accessible to them. Traditional measures may still have appeal on outer islands, but not in Urban Tarawa where there are no clear traditional village communities. The challenge will require legal control and management of coastal activities.

Legislation that covers aspects of coastal management is piecemeal and various ministries are responsible for their enforcement which makes it difficult to enforce them. A coastal zone committee, a biodiversity steering committee, other environmental committees exist but they are not statutory committees. An integrated coastal zone management regime plan is yet to be developed. Information is being gathered as noted above, and may be sufficient for developing a coastal zone management plan, but it is not clear how this is going to be approached whether to have new legislation or review the adequacy of existing laws.

Destructive fishing activities are not practiced in Kiribati. But there are a few instances when inshore finfish have been grounded on a number of islands. The cause is not ascertained but extensive harvesting of sea cucumber and cleaning guts at sea was suspected to have been the cause. The Fisheries Division has carried out training on post harvesting treatment of most fish species caught, but is harvested this did not cover beach der mer, which by the private sector.

V. Freshwater Resources

Where water lens exists in very limited amount on any part of the atoll, it is generally about 2 to 4 meters below ground level, and where it is well developed it is 20 to 30 meters deep.

There is a National Water Policy on the protection of groundwater resources and maintenance of the distribution network, but this focuses on Urban Tarawa. Water related problem is acute on Urban Tarawa. The progress on the maintenance is at least 50% complete and is carried out under the SAPHE project – A Kiribati Government loan project from ADB which will hopefully improve the existing water supply, sewerage and solid waste system on Urban Tarawa. It is however most likely that the SAPHE project will not be able to meet the need of Urban Tarawa, institutions and households for freshwater, and for an improved sewerage system.

Management of water supply system and sewerage system is the responsibility of the Public Utilities Board, a public enterprise established under its law. The communities are generally ignored from participating in the management of the water supply and equally water supply is in need of much improvement.

There is a case to review the law with a view to clarifying functions and roles for freshwater systems management and to allocate them among the various authorities on the basis of their respective competencies.

A programme on rainwater catchments to supplement ground water lenses for the urban area is being planned. The timeline and the starting date for the programme, including construction of catchment facilities is as yet uncertain.

There are no publicly accountable standards in use for the management of water supplies. Some monitoring is being carried out separately by the water engineering unit, PUB, and the Public Health Section of the Ministry of Health and Medical Services, but the data collected are put into a database where forecasting models could be developed. They are not generally made known to the public. Capacity needs to meet the requirement for monitoring water resources development and data collection for the forecasting models include: the lack of equipment (computer, software, and monitoring equipment), and of personnel with appropriate skill.

In the monitoring indicated above, certain procedures including frequency of the tests are followed, but for any monitoring of impacts of natural and environmental hazards that were

undertaken were largely based on comparison of the baseline data and the immediate observed data on water, for example salinity levels. Such studies and impact monitoring should not be misunderstood as climate change vulnerability assessment of the water lenses.

There has been some effort by regional organizations such as SOPAC and SPREP to provide appropriate technology especially in the area of waste disposal and to some extent rainwater collection. More effort would be needed to make impact of the programmes on Kiribati, and no doubt other Pacific island countries.

VI. Land Resources

The land area of each of the atolls is very small as noted above. In the Gilbert, land is further unevenly distributed among the people and owned either on an individual or kin basis; such land tenure system has proven to be limiting on the productivity and development of agriculture. Kin land is normally registered in the name of the oldest male member of kin group, an individual or individuals in the case of individually owned land including land which have been purchased

There are also leasehold lands and this is the case in some land plots on Urban Tarawa that government has leased for administrative and public use.

All the atolls in the Line Group are owned by government, but with the resettlement of some people from the Gilbert group to Tabuaeran and Teraina atolls in the Line Group, some lands have been sold to individuals on a freehold basis. Long-term residents on Kiritimati atoll have also purchased a set quota of about half an acre per purchase. Land is also available on a leasehold basis.

Geographical Information System (GIS) for Tarawa atoll is in place but still needs more data inputs and mapping updates. A GIS users group has been informally established to make data available in their various departments on GIS formats, and to input these in a map server that can be accessed from website. The map server has been installed within the Ministry of Fisheries and Marine Resource Development with the assistance of the EU project addressing the reduction of the vulnerability of the islands. Currently GIS is only for local experts but the intention is that the information contained thereat, including on land use planning management, should be understood and accessible to the wider community.

Awareness raising and capacity building on this tool and technology is desired.

General Land Use Plans for the two urbanized islands, namely South Tarawa and Kiritimati, have been adopted. However, there are difficulties in enforcing them due to the growing population, urbanization demands for residential areas, and private sector development. Interestingly, the local government of one atoll in the rural area has initiated a general land use plan for the atoll. This initiative arose from concern that certain individuals have established

other residential areas outside the village so as to have easier access to their communal land and harvest coconuts. Ideally, all the inhabited atolls should adopt land use planning and have a general land use plan. The current capacity of the Lands Management Division will only allow it to the local government council that has expressed that need.

Integrated use of the land and its natural resources is an important outcome that the general land use plans intend to achieve. This is clear in the case where portions of the land are specifically allocated on the basis of the use of its resources. There are water reserves areas declared under an appropriate act of parliament. Designated areas along South Tarawa shoreline are put aside for licensing removal of sands and gravels. All construction and development are required to undergo the EIA process before the development may proceed. But no development may proceed unless permission has been obtained. Separate laws cover each of these requirements. In addition, the Urban councils have their procedures for granting building permits or business licenses. A review of existing legislation and the permitting system for various forms of utilizing land resources would appear required as the existing system clearly does not enhance the sustainable use of the land resources.

Programmes related to conservation of biodiversity (see below) are relevant for afforestation and reforestation. There is not much forestland on the atolls, but what is termed as agroforestation is an effort to increase agricultural productivity. Land-owners are themselves being encouraged to grow vegetable plants in between perennial coconut trees. The demands of a rising population, and an increasing level of socio economic development on the land area have implied loss of “forest” land. Assessment of the extent of the loss of forestland could provide a useful information on the extent of the degradation of “forest” land. Agriculture Division is progressing on digitizing vegetation cover for Tarawa. Reforestation is pursued on Kiritimati atoll.

Human settlements on outer islands are traditional village settings of lines of local structures for each household and rights of occupation of the plot of land within the village guaranteed under law. This arrangement started in the early 1900 but more recently rights to house plots within the village areas appear now to have been challenged. In contrast the situation on Urban Tarawa is one of overcrowded and unplanned structures as pressure for housing led to the utilization of every available space, spoiling the neat land use plan of the Colonial Administration. Urbanization has been growing, and with it the insurmountable difficulty to maintain the environmental quality that had been once in the past.

Physical planning is within the Lands Management Division of the Ministry Environment, Lands and Agriculture. Although land use planning has been long time activity of the Division, it is only recently that it has acquired GIS tool for storing and displaying physical planning data that can facilitate the formulation of policies and decision making. As noted above the GIS can be applied only for Tarawa where base map and other information are available. But the intention is to apply the tool to other outer islands, especially to those with particular local need are

established there. Public awareness raising on physical planning is an important activity and for this purpose a full time community relation officer has been created and filled.

All GIS users and potential users from all the government ministries need training on the technology and applications. But if physical planning is to involve community participation, then communities and decision makers should be sensitized on the purpose and relevance of GIS for physical planning. Equipments that are associated with GIS will also be required, in particular GPS to enable the Lands Management Division to update or draw up maps of the outer islands. There is also a need to improve the general management and use of the GIS.

VII. Energy Resources

Just recently, renewable energy starts to have a prominent role to play in the development of Kiribati. Since 2004, the source of energy to both the government and people is mainly the fossil fuel. Not until todate, have all people in the outer islands fully accessed to electrical energy, making it difficult to realize their potentials from using efficient sources of energy. It is 38% of the overall population in the outer islands access to electricity using stand – alone solar PV home system and the majority of the people in these areas rely heavily on bio-mass as their primary source of energy for cooking.²

As clearly articulated in the NDS 2004 – 2007, government in its effort to promote equitable distribution of services and incomes to the people in the outer islands have implemented activities and programs include telecommunication and other infrastructure projects, but little programs on outer electrification. This was due to the very high capital cost required to cover all outer islands with electrification. During the past 5 years, the Energy Planning Unit (EPU) within the Ministry of Works and Energy has participated in many regional even some international programs/initiatives that have prompted them to identify and develop appropriate strategies to address structural constraints with respect to the energy sector.

However, the development in the energy sector has achieved much progress when the government owned, the Kiribati Solar Energy Company is very operational. This company has been successfully operating as a Renewable Energy Service Company managing more than 300 solar photovoltaic systems, the number of which has increased to 2000 plus with funding from the European Union. There is a high hope for the KSCL to address significantly the government problems with respects to heavy reliance on imported fossil fuel, coping with the increase in fuel price, lack of capacity to procure fossil fuel in bulk due to storage problem.

Recently, two renewable energy projects have been carried out, wind resource assessment in Kiritimati islands which will explore the potential of providing electricity from the wind. The other one is the solar water pumping system for secondary in the outer islands. Two other projects which are yet to start upon securing of funds, one is the pilot project on the PV Hybrid Mini Grid for one of the high schools located in the outer island and the other on integrating

² Refer to Kiribati National Energy Policy Document, section 3.3

solar power with diesel generator to electrify the same school. The Kiribati Copra Company Limited (KCML) will look into possible use of refined coconut oil for running diesel generators wither mixed with diesel or 100% using of coconut oil.

The Government has completed and endorsed the Kiribati National Energy Policy in 2009 that is mapping out strategies for longer term sustainability of the energy development in Kiribati. This policy also outlines essential areas within the energy sector to which the government could direct potential investments. It also articulates major policy issues include energy security, economic growth and improving livelihoods and access. This policy will compliment the whole effort of the government to address adaptation issues with regard to adverse impacts of climate change. As for dialogue purposes with development partners, this plan could provide the basis for negotiation on possible funding with interested donors. The EU has indicated greater interest to invest funds into this sector – renewable energy, through its bilateral program with Kiribati.

As strongly articulated in the current plan document (KDP 2008 – 2011), the government intends to minimize the impacts of increasing price of imported fuel by strengthening the capacity of the EPU, seek alternative sources of energy which at the this time, solar energy is now encouraged through the KSEC. To try to provide affordable sources of energy to the people in the outer islands by subsidizing the cost of distributing solar panels by KSEC to the outer islands. This requires substantial amount of money, hence the MFED in closer consultation with MPWE and KSCL are working together to develop concept note for EU funding on renewable energy for the region and even other EU and donors' facilities.

One of the focal areas being agreed with EU as part of our Total Country Program under the EU EDF is energy. Early this year, the MFED under the EU fund, able to have a TA who will work with NAO Office, trying to help Kiribati to fully access to available EU funds.

According to the KSEC Strategic Plan, its target is to try to cover all the outer islands to use the solar energy with through the subsidy of the government and most importantly with the funding support from the EU.

Challenges:-

Obviously, the first challenge that government needs to address is having an enabling institutional measures i.e. legal framework that would support the implementation of the recently established National Energy Policy. It is very critical at this time of global crisis and in amid the unprecedented level of global warming and under the threat of climate change impacts, that renewable energy is explored and encouraged to its fullest possibility and achievement in Kiribati.

Another challenge for the government is the coordination mechanism between government ministries and other relevant stakeholder that would allow the implementation of strategies to improve energy sector through sustainable and cost-effective manner.

Given the current level of reliance on fossil fuels by the government and people, the most important challenge that needs to be addressed strategically is the absorptive capacity to cushion any increase in the fuel price. Kiribati has just on the edge of recovery from the skyrocketing fuel price imposed and the inflation on basic food commodities caused exogenously. While the fuel of price in the world market has gone down, Kiribati is not yet fully recovered. Price of sinned goods is still higher in the market resulting

from the government decision to raise import duty rates to increase its revenue base. This is an effort to enable the government to remain having sufficient financial resources to maintain its core functions.

There are regional programs that are aimed at helping PICs like the bulk purchasing initiative. This is supposed to help countries who heavily depend on fuel energy without capacity to cushion the externally caused increase in fuel price, but this needs to be well analyzed quickly so that the government can make decision very soon.

The last challenge but not least, is the capacity of Kiribati to access available funding facilities on energy development and also the capacity to spend such funds. Kiribati has a very special and strong case to receive donor funding include for the energy sector but how to practically materialize it is a real challenge.

VIII. Tourism Resources

The tourism resource is still regarded as having higher potential for development if it is effectively explored. However, this area has not achieved significant progress since 2004, mainly due to natural geographical factors, financial resources to develop and improve essential infrastructures required for developing tourism industry.

On average, there has been an increase in the number of tourists coming to Kiribati, especially to Kiritimati and Tabuaeran islands in the Line and Phoenix group, closer to Hawaii. However, this figure has decline dramatically resulting from the cease of Norwegian Cruise Line Ship Company trips and visits to Tabuaeran Island from 2008. After having established and expanded the Tourism Unit within the government and even being merged with transport and communication portfolios, there are some minor progress being achieved, the involvement of private sector groups in promoting Kiribati to become tourist destination.

The recently developed and endorsed 5 – year National Tourism Plan highlights major programs that could potentially increase the contribution of tourism resources to the Kiribati economy. However remained as huge challenge, is the non-existence of institutional measures that need to be put in place to support the implementation of this ambitious national tourism plan.

In the past 10 years, Kiribati has been the only place recognized in the United States and in some Asian countries as the best place for tourist fishing game. Now, there are few activities being started in the area of promoting Kiribati outer islands as fishing game area for tourists. AusAid is now supporting the Tourism office by providing a TA to help developing implementation strategies for the National Tourism Plan and enhancing the capacity of existing staffs.

With the declaration of the Phoenix Island as one of the conservation areas in the world, there is a great potential for enhancing eco-tourism there, targeting niche tourism industry. This thought has been floating around within the MCTTD, MELAD and NEPO but still in an exploratory stage requiring more concrete analysis.

The two national plan documents (NDS 2004 – 2007 & KDP 2008 – 2011), both do not clearly mention any national strategies in regards to promoting tourism resources. However, this does not necessarily mean that tourism resource is not important. It is more or less an indication that the government with its limited resources might not be able to improve essential infrastructures for tourism development. As reported in the last report, there had been a redesign of government portfolios involving the transfer and merging of the tourism with transport and communication, but yet there is no substantial progress in the improvement of the tourism industry in Kiribati, apart from expansion of already existed hotels and accommodation.

There are few interested foreign investors submitting their application for investing in tourist accommodation targeting Kiritimati Islands but given the number of tourists coming to Kiritimati and the already existing local hotel/motel operators, their application is not considered. Had this foreign investment application targeted other tourism enabling areas than Motel, it would have been already approved.

It is therefore the tourism sector in Kiribati since 2004 is remained in an exploratory stage, requiring a comprehensive cost-benefit analysis before the government is committed to invest huge amount of resources to realize the potential of this resource.

Challenges:

Though they are not new, lack of marketing capacity and the absence of essential infrastructure are remained crucial challenge for enhancing and expanding tourism sector in Kiribati.

Kiribati posses the same natural resources that other Pacific Islands Countries whose tourism industry are very active and productive like, sea, beach, unique culture and traditional arts, friendly people, beautiful islands and islet, the Phoenix island with untouched under water natural resources. However, converting these resources into tourism resources is a challenge that not the government but people also need to address.

Australia and New Zealand could be a potential source of tourist to Kiribati but it needs to be nurtured aggressively through Public – Private Partnership (PPP) approach. With the Our Airline resumes its flight, connecting Kiribati with Australia, the effort to promote Kiribati to be genuine destination for Australian tourists might be easy.

While Kiribati still decides on investing public funds into improving international connection through air transport, having secured more than two airlines to service the route between Australia and New Zealand to Kiribati, there are other local pressing commitments that always take precedence over tourism.

The tourist resources could be possibly reach the outer islands and benefit the people there but these can only be realized when the above constraints are addressed while at the same time people in Kiribati start to instill a more proactive forward looking mindset to make Kiribati attractive like other pacific islands.

IX. Biodiversity Resources

Kiribati signed the Convention on Biodiversity and ratified it on the 6th August 1994. It has further decided to ratify the Cartagena Protocol on Biosafety. In 2000, Kiribati became a party to the World Heritage Convention.

Terrestrial resources are extremely limited and this is compensated by rich marine biodiversity that provide and are part of marine resources. Kiribati is also renowned for avifauna that together with turtle are protected at declared sanctuaries under the law, there is also control on the size and condition of grayfish that may be fished. A large area of Kiritimati and few islets in the Gilbert group are declared sanctuaries for avifauna, and some of the natural ponds on Kiritimati are also declared as restricted areas for the protection of naturally spawned milkfish. Wild life wardens are maintained on Kiritimati, and Fisheries officer monitor export of fish to ensure they do not include grayfish that are undersized or bearing eggs.

Additional to those national initiatives on conservation, Kiribati is carrying out projects that are part of Conservation Programme, a National Biodiversity Strategy and Action Plan (NBSAP), National Biosafety Framework, Development of Sustainable Agriculture in the Pacific (DSAP), Marine Protected Areas, and Research Projects.

The conservation Programme sets up conservation areas with community participation as main stakeholders for promoting conservation, maintenance, and sustainable use of the resource of the areas. The strategies are community-based and take account of the multipurpose use of the resources including at the ecosystems level. A committee with representatives of the village communities and local government was established for conservation area at North Tarawa. Efforts were made to sensitize the committee on project planning, and encouraging initiatives on ecotourism. The project has however ended in 2002.

NBSAP objectives are very comprehensive covering information collection to establish base line situation, identify risk factors, options for priority actions, and formulating Strategies and Action Plan. The project has progressed well and a NBSAP is being processed for Cabinet approval. Activities that have already started included more data collections, public awareness raising and extensive consultations in an effort to appreciate realistic threats and design conservation programmes that can address the threats. These programmes will include a wide distribution of information so as to change current practices over such destructive exploitation of marine ecosystems. Revegetation and replanting of indigenous trees is an important activity that will be pursued.

National Biosafety Framework intends to assess technological capacity to manage biosafety, and to strengthen national capacity to develop legislation on biosafety framework.

DSAP aims to work with framers to identify their productivity problems and solutions. It is largely focused at present on information gathering and project conceptualize, which will also consider the use of technology innovations that are environmentally appropriate.

Agricultural Department collects varieties of important stable food crops for ex situ conservation. Varieties have been disseminated to outer islands where these are distinct.

Marine conservation areas have been established and include milk fish ponds on Kiritimati. There are also enhancement or rejuvenation programmes for known fish stocks that are overfished, for example giant clam.

Biotechnology is also being promoted and based on traditional resources. An example of this is the pearl culture. But there are risks to biodiversity from invasive non-indigenous species. These include taro beetle, mealy bug, wedelia plant, mynah bird, and catfish.

The communities are very responsive to the programme on biodiversity. Information from them on traditional uses of varieties of plants, or of their concern about commercial exploitation of certain fisheries is valuable and encouraging for the biodiversity programmes. On the other hand, there is no legal framework to protect ownership of knowledge in the event of it being used to develop invention or new technology in another country and for which patent is claimed and granted.

X. Transportation and Communication:

Transportation:

This sector essentially supports the socio – economic development in Kiribati. Given the geographical setting of Kiribati, transportation is very important for the people and government. Inevitably, running and sustaining a transportation system in Kiribati is very expensive, hence all modes of transportation (sea, air and land transport) are done on a commercial basis. The idea behind this is to ensure sustainable transportation in Kiribati by adopting commercial undertaking in this sector.

Land transportation is largely handled by private operators through local councils. There has been recent review and update to Traffic Act to regulate the use of public roads by vehicles. With the expansion of private operators in the land transport operating now more transports, the traffic has now become a problem given the size of the road. It is therefore compelling the Kiribati Police Services to deploy more traffic officers to manage and control traffic but with substantial amount of cost to meet their operation. Lands transportation is not really a problem in South Tarawa but in the outer islands, this area is not fully developed. Given the viability and profitability of operating a land transport in the outer islands, there is still few interested private business provide this service, therefore the Government through the help of Taiwan provide land

transport through local councils. The challenge now for these transports is the cost for maintaining them.

Sea transportation is both provided by the government through its owned company, the Kiribati Shipping Services Ltd (KSSL) and local private businesses. The international shipping service is used to be operated by the KSSL and some foreign shipping companies but just recently, there is now one local fishing agency, Joice Shipping Ltd enters this market. Sea transport for inter islands travel in Kiribati is often favored by people for it is more affordable than the shipping, but given the recent shipping accidents people are looking for more safer and efficient transportation. The problem with the inter islands shipping services in Kiribati is the lack of enforcement of requirements under the Maritime Act.

The students living in the outer islands heavily rely on shipping services but the given the capacity constraints of private operators to meet the aggregate demand for shipping services and the current financial situation of the KSSL, this area is not yet fully developed and improved. There is a big gap between the supply and demand for shipping services in Kiribati; especially for the southern islands of Kiribati where running shipping services to cover them is not viable. It is therefore the government still subsidizes the operations of any shipping services for the southern islands and those islands very far away from the capital especially when transporting basic food commodities, health and education facilities. If the sea transportation remains undeveloped, then the level of wellbeing of people in the outer islands will be remained improved. It also causes and encourages rural-urban drift by people willing to access to better services and opportunities in the capital, South Tarawa.

Kiribati remains committed to provide feeder shipping services to smallest islands states in the region but that requires strengthening the KSSL to continue able to perform such obligation and also the commitment on the parts of these islands to honor their obligation. Running a feeder services to these small islands has to be viable for the KSSL to continue doing it, unless through any regional means that could ensure the KSSL provides this service sustainably.

Air Transportation is a very high risk to small island economies like Kiribati, however in the case of Kiribati, maintaining air transportation both for international and local services is a difficult political decision. The government continues to maintain and operate local air services through its commercial company, Air Kiribati Ltd (AKL), while making lease agreements with international and foreign air companies for international services. Only recently has the AKL been undertaking full reform in order to be able to sustain its local operations. Likewise, the challenge for the Air Kiribati is to continue serving air services to islands located far away from Kiribati the southern islands. Given the high cost of running air services to operate there is very few private operators willing to enter this business. However just recently, there is now one private business start operating local air service, the Coral Sun Airline. This has improved the level air fare for local air services as the AKL has now competed with Coral Sun Airline on their fare. The Civil Aviation enacted in 2005 has now been implemented but require more awareness.

Recently, the Our Airline has resumed its operation providing air services from Australia, Solomon, Fiji to and from Kiribati. This has also increased the opportunities and options for international air services from Kiribati. The government is still a negotiation process with the Air Pacific for a cheaper air services required from Kiribati to the Kiritimati islands.

Challenges:-

Transportation is very essential but very expensive in Kiribati. Given the heavy reliance on imported goods from overseas for survival, there is a need for a reliable transportation from overseas markets to Kiribati.

Of particular case is the local transportation by sea and air between islands in Kiribati. This is very expensive for the government to sustain this service. This is an inevitable problem inherited based diseconomy of scale with regard to geographical setting. How to solve this problem remains a challenge.

The safety of sea transportation remains to an important consideration for Kiribati that requires effective enforcement and monitoring strategies. It is also imperative on the parts of people and local operators to increase their level of compliance, which remains now a challenge. With regard to safety for air service, there is a need now to upgrade and undertake proper maintenance and renovation to the Bonriki airport runway.

The need to improve legislation, infrastructure, navigation aids and hydrography is required to facilitate and sustain increases in shipping traffic but there is a lack of funding.

Communication:-

Communication is central to the development. Given the globalization and the fact the Kiribati has already integrated into the world economy, communication is a sector that Kiribati needs to develop in order to achieve sustainable development. Of particular importance in the case of Kiribati is the need for having better means of communication as a way to address diseconomy of scale for being isolated and scattered widely.

Over the past five years, the level of communication in Kiribati in terms local communication facilities including radio, telephone, internet coverage to remote rural areas has been improved. The BPA has now able to cover all outer islands including islands in the Line group. The TSKL has extended its telephone coverage to outer islands, though few more islands to cover. The TAK has launched a pilot project of installing an internet facility at the furthest island, Tamana island.

As an effort to improve the delivery of communication services within Kiribati, the government approved the creation of the Telecom Authority Kiribati (TAK) in 2008 to properly regulate this sector. The TAK is a regulator of the communication in Kiribati. This was used to be done by the Telecom Kiribati Ltd while the same time the provider of communication service.

Just recently, the TAK has launched a pilot project on connecting the furthest island in the southern part of Kiribati to the rest of the world through internet. This has been successfully undertaken proving that connecting all islands via an internet is not a problem apart from the ability of the local council to sustain the operation of this internet facility. It is the intention of the Telecom Authority Kiribati.

TSKL has even already set up internet connections on quite number of outer islands. The government is currently considering the possibility of having interested company to enter into joint venture with TSKL and improve and expand its telephone coverage to all rural areas. There is one Australian company having approached the government but still in a negotiation center. This move will pave the way to encourage more foreign investors to operate this service.

Interestingly, there are local businesses have already entered in the communication industry, running internet shops. All government secondary schools including churches schools have all computer laboratories with internet connection, except schools located in the southern parts of Kiribati.

All government ministries and departments have all internet connections, telephone and fax connections, though some ministries have not enough computers, telephone and fax machines for budget constraints. Last year, the government has established an ICT unit within the Ministry of Communication, Transport and Tourism to improve the government network and communication within and outside Kiribati. This Unit will also formulate ICT policies that would help improving Kiribati effort to communicate with the outside world, standardizing IT system within ministries and departments.

Challenges:-

Despite substantive progress being achieved, the challenge now is to enable local operators include TSKL, TKL to compete with foreign companies. There is a great need first to strengthen these local capacities so that they can compete with other interested foreign companies.

Another challenge is the quality of connection via internet. Though there is a wider range of internet and telephone connections, the quality in terms of the speed is still a challenge. The price of the telephone and internet is still very high and many people still cannot afford.

Improving and expanding communication coverage by all means throughout Kiribati require substantial amount of money which is a problem. In addition if the funds are secured, the maintenance plan is often neglected causing the un-sustainability.

XI. Science and Technology

Science and technology is regarded in Kiribati as two separate terms that are interrelated in the service products of materials. Science is defined as the art, knowledge, skills and the ability to do tasks; technology is a method to do an effective and efficient way and means to implement tasks. In practical terms science is knowledge and technology is the useful product of the application of that knowledge. Kiribati further recognizes two types of technology: traditional and modern. Both are important in government education policies, environmental policies, and other socio-economic policies.

However, there is not much progress in the implementation of this sector due to the limited capacities available.

XII. Graduation from Least Developed Country Status

Kiribati was considered for graduation from the LDC status during the 2007 assessment round. However, in the current assessment round Kiribati is not a candidate for graduation on account of its per capita income level and vulnerability assessment.

XV. Sustainable Production and Consumption

Kiribati has been active in regional and international programmes in promoting the new concept of Environmentally Sustainable Economic Growth (*Green Growth*). This is through the active participation in regional and international meetings coordinated by the UNEP and UNESCAP like the Fifth ESCAP Ministerial Conference on Environment and Development (MCED) in March 2005.

However, nationally there is not much that has been done in translating such regional initiatives mainly Green Growth into national policies and plans like the Kiribati Development Plan 2008 - 2011. Also still there is a slow in moving towards a new approach of *Green Growth* shifting away from the conventional “Grow first, clean up later” approach though, the Kiribati Environment Act 1999 (amended 2007) lay a framework on environmental protection which requires new development projects to undertake environmental impact assessment and also provisions that require monitoring of environmental performance in pollution control of such undertakings.

On the domestic front, the Ministry of Environment, Lands and Agriculture Development in celebrating the National Environment Week in 2007 organized a competition for businesses. This promoted a concept of Green Business which involves both government and private companies that demonstrate or engage in practicing environmental friendly measures and includes selling of environmental friendly products.

Given the circumstance of Kiribati with no major manufacturing industries, perhaps more focus should be given to sustainable consumption to achieve high-quality lives with less consumption of goods and services and with reduced emissions of wastes and pollutants.

More active participation in regional initiatives on Green Growth is needed and information sharing in the region. The concept to be more visible has to be translated into national policies and plans like the KDP and funding assistance to implement this nationally. There is also an important role of NGO's to promote sustainable consumption patterns

XIII. Trade: Globalization and Trade Liberalization

The effort of the government in trying to lower the trade deficit in Kiribati since 2005 remains very difficult, if not impossible. This is associated with many structural constraints, narrow economic base, being isolated from the world markets, limited resources and lack of capacity to harvest its own valuable resources – marine resources. This difficulty is even exacerbated with current requirements under new trade regimes the world embarks on during the era of globalization and trade liberalization.

During the last 5 years, Kiribati through the Ministry of Commerce, Industry and Cooperatives (MCIC), Ministry of Environment, Agriculture and Lands Development (MELAD) and other departments has been trying to improve its balance of trade. This is supported by encouraging private and foreign investment in productive areas like marine resources, diversify production and export base, reduce imports through import substitution, improving quality of local products and promote them to tourists and overseas markets. The progress over these efforts is still not satisfactory, though some positive achievements realized.

Kiribati remains in an observer status to the World Trade Organization and party to PICTA, PACER and PACER Plus and even still participate in the current EPA negotiation with the EC. Though Kiribati is party to PICTA, it remains salient in the announcement for implementing of PICTA. Kiribati is yet to announce its readiness to trade under PICTA. Kiribati remains skeptical to the economic benefits envisaged under this PICTA, as it needs first to overcome its structural constraints prior to actively participate.

Despite Kiribati as being remained in an observer status to the WTO, not yet ready to announce its readiness to participate in trading under the PICTA, it has initiated reform programs compatible to that required under the trade liberalization. Kiribati is fully supportive to the idea that one is fully ready and able to participate effectively under any trade regimes prior to announcing it rather than the other around.

The Tax Division together with the Customs Divisions with the support from the International Monetary Fund (IMF), the WTO and AusAid through the Regional Customs Regional Organization has commenced preparation toward adopting the VAT as an alternative to eliminating boarder duties. The Customs Division under the funding support of AusAid is now trying to strengthen its boarder control before these regional trade agreements (PICTA & PACER) are fully implemented in the region. There is a thought to merge the customs and tax to become an autonomous body, but this is still in a conceptual stage.

Challenges:-

Given the fact that some PICs members are still not ready to announce their readiness for implementing PICTA, Kiribati whose benefits from this regional trade regime is even uncertain the challenge remains for the government to make a genuine and practical decision on this regard.

The effort to expand import substitution to narrow the gap in the balance of trade is a challenge that needs cross-sectoral support. Not until people can revert back to their subsistence lifestyle, the effort by the government to improve import substitution will materialize. As confirmed from data on the health, the major cause of adult mortality is associated with their eating style, eating unhealthy diet. There a lot to do in this area but it can only be successful with full support of the community. The challenge now is try to race against the tide.

Removing income from custom duty and import levy is difficult policy decision for the government as revenue from customs duty and import levy constitute 48% on average of the government total revenue. Employ other policy tools to compensate this loss i.e raising tax rate might help the government to recover this loss from boarder duty revenue but at the expense of consumers. Striking a balance position and decision is a challenge.

The quality and volume of local products to meet standard and requirement of overseas market is also a challenge that needs adequate trade capacity and strong mindset of the people respectively.

Not until the government can harvest its own marine resources (tuna resource), and receive the right amount from the PIPA project, the issue for compliance to global trade liberalization will remain a tough challenge.

XVII. Health

The health sector remains one of the focal areas that the government through the Ministry of Public Health and Medical Services (MPHMS) has been establishing and implementing program of actions, aimed at improving the health conditions throughout Kiribati. It remains a very important sector for Kiribati that requires a forward looking and holistic approach.

Since 2005 until todate, there are major activities being carried out in Kiribati. These include but not limiting to the following programs:-

- 1) The upgrading and strengthening of nurses and public health training programs;
- 2) The family planning and population policy;
- 3) The nation-wide awareness program on child and women health issues and non-communicable diseases;
- 4) The expansion of medical services in the outer islands;
- 5) Improving health and sanitation; and
- 6) The upgrading of Doctors qualification into specialized areas.

During the period reviewed, the MPHMS has achieved a mixture level of progress in the implementation of the above programs. In areas where progress is obvious, challenges are remained exist.

The major cause for death in Kiribati is the non-communicable disease.

Given the fact that the health issues are on-going in nature, there has been an increase in both the number of donors willing to support health programs and the amount of donors funding to support implementation of these programs.³ However the capacity to manage and use these donors funding has been an issue to both Donors and Government of Kiribati (GoK). The effort to address this is on-going.

From the NDS 2004 – 07, the thrust of the plan was to continue improving the health of the people. In accordance to the local review made on the progress of implementation of health policies and program from 2004 – 07, progress includes the followings.⁴ The awareness and campaign program on preventive measures for non-communicable diseases include TB, STT and HIV/AIDS was being undertaken at the national wide coverage level intensively. The government during this period had initiated some millions-dollar projects funded through the ADB credit facility known as the Sanitation and Health, Public Health Education (SAPHE) project aimed to improve access to quality water and sanitation in the urban area. The result of the project is not very satisfactory as the problem was not being addressed adequately. The access to health services for HIV/AIDS is being improved. Special program for youth has been established through building special clinics to handle youth related cases. Largely is the completion of clinic building centers in the outer islands under the EU EDF 9 funds. This has been significantly addressing the need to access to better health services. Just recently, the main hospital for the Southern part of Kiribati has been built and will be fully operational by next year. This will help addressing the referral problems from these parts (Southern islands) of Kiribati to the main hospital in the capital.

Kiribati in its development plan for 2008 – 2011(KDP 2008 – 2011), highlights the importance of minimizing and controlling mortality rate on child and women through effective and national wide awareness programs, better health delivery services by well-trained health workers, and implementing programs aimed at promoting safer sanitation and water to improve child survival. Just recently, has the UN agencies through its one-program in Kiribati increased its support to the health sector.

According to local sources, the rates for both child and women mortality has improved over the last five years; though they fluctuate.

Outlined below are major achievements in the health sector for 2009.

- Communities and individuals increasingly practise behaviors that reflect healthy lifestyles, social protection and better use of services;
- Child Survival Strategy completed - to be endorsed & implemented
- National Integrated Special Immunization Activity (SIA) successfully completed

³These donors funds from WHO, UNICEF, UNFPA, SPC, UNDP, EU, ADB, JICA, Taiwan, AusAid, NZAid.

⁴ Refer to Kiribati Development Plan 2008 – 2011 document, p 8. This review was done by MFED in close consultation with MPH&MS

- Baby friendly hospital initiative (BFHI) certification of Tugaru Central Hospital “work in progress”
- Breastfeeding policy - endorsed
- Maternal child health booklet - endorsed
- Complimentary feeding booklet - finalized
- National Food Summit steering committee set up

Challenges and Issues:-

Despite obvious progress in the implementation of Health policies and programs from 2005 – 2009, challenges are still experienced with respects to achieving the MDG goals and targets, establishing sustainable financing of health requirement, establishing sustainable use and consumption on medical/pharmacitical supplies.

Critically, Kiribati has the highest rate in the infant mortality rate and alarming HIV/AIDs rate in the pacific region.⁵

Though there has been an improvement to the mortality rates for both child and women, Kiribati based on the assessment done in 2008 is unlikely to meet the MDG targets on goal 4 and 5. This is due to number of factors include the level of understanding on the part of women to look after their child properly, the level of household income, the level of hygiene and sanitation and the persistent traditional notion on the role of women in the Kiribati society.

The main challenge that the Government always faces is the ability to determine the right amount of medical supplies to avoid regular shortage of supplies. This is perhaps to do with the need to put in place proper stock management and control mechanism. The Ministry of Public Health and Medical Services is struggling to determine the root causes of medical supplies shortage that usually happen.

Another challenge is the amount spent on overseas referral programs. This can only be done if doctors and nurses possess the qualifications that would enable them to provide health services that are currently lack in the country, hence the inevitable need for an overseas referral programs.

The political implication of adopting user-pay principle in the health remains a challenge to the government in Kiribati.

⁵ This is obtained from the Director of Health presentation during the Joint Strategy Meeting between Kiribati and UN in 2009.

XIX. Culture

Culture in Kiribati is regarded as the foundation for socio-economic development. Kiribati culture promotes peace, prosperity and communal lifestyle. The uniqueness of Kiribati culture is one of the resources that could have significant contribution also to economic growth. Our stable government is underpinned by our cultural norms that provides for the basis and platform on which our political parties and politicians do business. The culture in Kiribati remains intact and conserved, though there are some new youth generations' practices and lifestyle currently evading cultural norms i.e prostitutions on foreign fishing nations.

Cultural issues are handled by the Ministry of Internal and Social Affairs through its cultural center where the national museum is located.

Over the past 5 years, the Cultural center has continued visiting outer islands collecting and documenting all invaluable traditional knowledge, skills and arts and keeps them in the museum for sustainability. These include knowledge and skills on planting local crops, fishing, and local medicine. The Cultural center is still working in close partnership with the Ministry of Health, Ministry of Agriculture and Fisheries in promoting local skills. The Ministry of Health has developed a policy which allow local medical practitioner to use health centers and follow its guidelines. The documentation on all invaluable and unique local skills and knowledge is almost covering the whole nation, now 80 – 90% coverage.

These knowledge and skills are kept in the museum but they can be accessed free by the public especially for schools for research purposes.

The government is still committed to provide social benefits for the elder people based on recognizing the importance of elder people in the Kiribati community. This social benefit is more or less the honorary payment for the elder people.

Kiribati is always committed to attend the pacific festival of art held every 4 years under the South Pacific Community program.

As part of forward looking plan, the Ministry of Internal and Social Affairs through the Cultural center is looking at set up the Law which will protect the indigenous knowledge and skills from being used for commercial undertakings by foreigners without any royalties given to indigenous people.

Challenges:-

Despite the fact that Kiribati cultural values are vital social pillars for sustainable development, there are cultural issues that hamper development. These include; empowerment of elderly member of the community over legal institutional bodies like local council, conflict between democratic principles and traditional values, gender issues versus traditional practice of leadership in the household.

The Government has ratified the CEDAW but it is a big challenge for the Ministry of Internal and Social Affairs whose role is to advocate right of women, to promote this in the outer islands, especially in the southern part of Kiribati where the cultural norm of recognizing the superiority of men still strong.

The challenge for the government now is to try to strike a balance between the culture and development and how they complement each other.

PLAN IMPLEMENTATION AND MONITORING

Indicators and Monitoring:

Not until the current plan document is developed (KDP: 2008 – 2011), there were no indicators agreed on how to monitor the progress of implementation of the last plan documents (NDS 200 – 2003 & NDS 2004 – 2007). The current KDP has national indicators deemed to be meaningful and well defined, measurable and time bound, and achievable. This is a new development on the national development plan process since 2000.

However, how to translate these indicators into the ministry operational plan level is a big task and challenge that the MFED is still working on with all relevant stakeholders. Without indicators it will be very difficult to monitor the progress of implementing key policy areas (KPAs) through MOPs.

Currently, the GoK is in the process of reviewing these national indicators, developing MOP indicators and trying to develop targets accordingly. With the support from UNCEF, the MFED in close consultation with all government departments is yet to finalize its national indicators align them UN indicators under which their targets of their national programs are based.

Once these national indicators being developed, then sector ministries will develop then their MOP indicators upon which their annual targets might be set.

Monitoring and Evaluation:

Starting from 2005, the government has derived a monitoring and evaluation exercise involving Ministries reporting their half-yearly progress on the implementation of the annual MOP to the MFED. The MFED analyze these reports against each Key Policy Areas in the KDP to confirm their alignment. The MFED also analyzes these reports against the recurrent and development budget spent to match the progress with the amount being spent.

The analysis of the MFED based on these report is compiled into a progress report and submitted first to the KDP Taskforce comprising all Deputy Secretaries for their comments and inputs before is submitted to the Development Coordinating Committee (DCC). The DCC provides comments before is finally submitted for Cabinet endorsement. Whatever recommendations from the report, it is the responsibility of the KDP Implementation Taskforce to implement them, with the support of the MFED KDP technical supporting team providing secretariat and technical advices to the KDP Taskforce.

In the 2009 KDP progress report, the reports on the financial performance and position of State Owned Enterprises (SOEs) are also included in the report.

This year 2010 in May, the mid-term review will be conducted on the KDP, reviewing its implementation so far since it is first adopted and assess its relevance and practicality with what ministries are currently doing and see if there are areas that need to be reflected or changed.

Challenges:-

Despite the fact that there is an increase in the number of ministries comply with this monitoring and evaluation exercise, the quality of the report needs to be improved. It requires more analytical comments from the MFED, KDP Taskforce.

In addition, there is a need also to be able to quantify the cost of the activities being implemented in order to match the budget spent with the progress reported. This requires technical knowledge to do this.

With regard to the indicators, some ministries need to understand and distinguish between the national and MOP indicators. The main challenge in developing indicators and targets is the lack of base-line data.

6. IMPACTS OF THE MULTIPLE GLOBAL CRISES & KIRIBATI'S RESPONSE

The main impacts from the global financial crisis and slowdown have, so far, been through global asset price declines and the depreciation of the Australian dollar (A\$). The Revenue Equalization and Reserve Fund (RERF) and the Kiribati Provident Fund (KPF) declined by respectively 12 percent and 20 percent during 2008 (or 31 percent and 37 percent in U.S. dollar terms). High world prices for rice in 2007 fed through into domestic inflation (cushioned somewhat by price subsidies), but the global food price declines have not yet been reflected in lower domestic prices, in part because of the depreciation of the A\$. Administered fuel prices mean that the public sector absorbed the impact of the run-up in global fuel prices through mid-2008, but the depreciation of the A\$ in part offset the subsequent decline in international fuel prices.

7. ISSUES/CHALLENGES AND RECOMMENDED POLICIES

Eight leading sources of development risk confronting Kiribati are identified, and these require understanding and appropriate responses in the form of well-formulated national development strategies and the support of development partners:

- Climate change,

- International prices of the Australian dollar and petroleum-based fuel,
- The continued population increase,
- The limited resource base and sources of income available to the economy,
- Unplanned and unmanaged urban growth,
- Underperformance by government departments and public enterprises,
- Passive management of public finance; and
- The emergence of divisive political tendencies.

The first two listed are outside the control of Kiribati but demand well thought-out strategic responses. The impacts and outcomes of points (iii) – (viii) are highly dependent on the quality of Kiribati strategies for economic and social management.

Recommendations for Priority Policy Actions. 16 policy actions are recommended as keys to the full range of responses that need to be formulated to cope with development risk and enhance sustainable development. The priority recommendations cover.

- Population policy and poverty;
 - Improvement of health services, educational standards, and technical training, particularly further expansion and upgrading of the Maritime Training Centre (MTC);
 - Progressive renewal and transformation of South Tarawa's urban areas;
 - Constitutional reforms to enhance the accountability and performance of national and local governments;
 - Climate change;
 - Kiribati support for management of Pacific tuna stocks;
 - Devolution of governance for development of Kiritimati, and promotion of the Phoenix Islands as a Phoenix Islands as a globally significant marine protected area;
 - Closure or sale of nonstrategic public enterprises, and enforcement of governance standards for strategic public enterprises;
 - No subsidization of fuel prices, but promotion of alternative energy sources; and
- Strengthened public financial management