



Technical Assistance Report

Project Number: 39641
November 2006

Republic of Kiribati: Integrated Land and Population Development Program on Kiritimati Island (Financed by the Japan Special Fund)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 14 November 2006)

Currency Unit	–	Australian dollar (A\$)
A\$1.00	=	\$0.754
\$1.00	=	A\$1.323

ABBREVIATIONS

ADB	–	Asian Development Bank
CASL	–	Committee for Allocation of State Land
GIS	–	geographical information system
LMD	–	Land Management Division
MELAD	–	Ministry of Environment, Lands, and Agriculture Development
MFED	–	Ministry of Finance and Economic Development
MLPID	–	Ministry of Line and Phoenix Islands Development
PARD	–	Pacific Department
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sectors	–	Multisector (agriculture and natural resources; health, nutrition, and social protection)
Subsectors	–	Environment and biodiversity, health systems, social protection
Themes	–	Sustainable economic growth, environmental sustainability, private sector development
Subthemes	–	Fostering physical infrastructure development, developing urban areas, environmental policy and legislation

NOTE

In this report, "\$" refers to US dollars.

Vice President	C. Lawrence Greenwood, Jr., Operations Group 2
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I. INTRODUCTION

1. The Government of Kiribati emphasizes the need for improving the economy of the outer islands, particularly Kiritimati (Christmas) Island. The Asian Development Bank (ADB) has therefore included a technical assistance (TA) for Implementation of Population Policy and a Land Development Program in its country strategy and program update 2006–2007.¹ The TA Fact-Finding Mission visited Kiribati (Kiritimati Island and Tarawa) from 16 to 30 August 2006 and discussed with government officials the objectives and scope, implementation arrangements, and outline of general terms of reference of the TA.

II. ISSUES

2. Kiribati is a remote, widely scattered Pacific nation that straddles the equator. It has the largest exclusive economic zone² (3.5 million square kilometers [km²]) of any Pacific developing member country of ADB. The nation has 33 coral atolls, 23 of which are inhabited. They are divided into three distinct groups of islands: the Gilbert Group, the Phoenix Group, and the Line Group. Kiritimati Island, which is part of the Line Group, covers an area of 388 square km². It accounts for half of Kiribati's total land area. It is located some 3,000 km east of South Tarawa and its population was approximately 5,000 people as of 2005. All three island groups span the equator, which runs through the country passing just south of Tarawa. These low-lying islands have few points that are more than 2 meters above sea level, making them vulnerable to rising sea levels. People rely on fresh groundwater and rainfall for their water supply.

A. Population Issues

3. In 1947 only 1,671 people lived in South Tarawa, but by 2005 this figure had risen to 40,311. Movement from outer islands to South Tarawa has been especially marked since 1995, with the population actually declining in most outer islands while South Tarawa's population has increased by 5.2% per annum. People move to South Tarawa to obtain education and employment, but schools are becoming overcrowded, and there are nowhere near as many wage-paying jobs as needed. Each year the population of South Tarawa grows by about 2,000 people—the equivalent of 67 classrooms, each with 30 students. If the current growth rate continues, the population of South Tarawa will double in less than 14 years.

4. The impact of this rapid population growth in one small area is obvious. Population densities in South Tarawa have increased, and almost 12,509 people now live in Betio, a small islet with an area of only 1.75 km². Many residents lack safe water and sanitation. New houses are needed to accommodate the growing population, but vacant land is becoming scarce. Overcrowding and the lack of safe water and sanitation affect health. Kiribati has high rates of infectious diseases, including respiratory, diarrhea, and skin diseases, and an increasing incidence of Hepatitis B. Families that cannot grow enough food need to buy imported products that are low in fiber but high in sugar and fat. This contributes to a growing incidence of diabetes, cancer, and other related diseases.

5. Two thirds of all wage jobs in Kiribati are in public service; 64% of such jobs are in South Tarawa. Only about 1 in 10 I-Kiribati (the people of Kiribati) is a wage earner. The few wage

¹ The TA first appeared in *ADB Business Opportunities* on 1 September 2006. In ADB. 2006. *Country Strategy and Program Update 2006–2007*. Manila, the land use management and population policy components are identified as two separate TA projects. At the later stage, because they had similar objectives, it was decided to process it as a single TA project.

² Under the law of the sea, an exclusive economic zone is a seazone over which a state has special rights over the exploration and use of marine resources

earners must provide for the cash needs of many non-workers in their extended families. This is especially difficult in South Tarawa, where most people who have come in search of work do not have their own land and depend largely on store-bought goods.

6. The *National Development Strategies 2004–2007: Enhancing Growth and Ensuring Equitable Distribution*,³ identifies the following as a key development strategy: “Design and implement comprehensive population policy to achieve stability of total population by 2020–2025.” There are two main ways to achieve a stable population. One is large-scale permanent emigration, and the other is for every family to have only enough children to “replace” themselves. In the short run, voluntary resettlement from South Tarawa to Kiritimati Island is expected to help alleviate the problems associated with high population density in South Tarawa. In the long run, carefully designed population policies need to be implemented to tackle issues associated with high population growth. This TA is closely related to and will support the objectives of the Outer Island Growth Centers Project.⁴

B. Land Development Issues on Kiritimati Island

7. With the exception of some freehold plots in Tabwakea and Poland villages, all land on Kiritimati Island is state owned, including land leased by the Government to various occupants, including foreign investors such as the Japan Aerospace Exploration Agency.⁵ With a population of approximately 5,000 persons as of 2005 and a population density of about 8.5 people per km², Kiritimati Island contrasts starkly with overcrowded South Tarawa. Therefore, the Government is considering providing opportunities for people from overcrowded areas—particularly South Tarawa—to resettle on Kiritimati Island.

8. The recently completed TA on Supporting Land Use Management on Kiritimati Island⁶ developed a new land management system for Kiritimati Island and provided a policy and planning framework through which state lands could be alienated and developed. This new land management system was endorsed by the Cabinet in 2005.

9. A key policy direction of the new land management system on Kiritimati Island will be the release of 600 plots over the next 4 years, including the release of 300 plots during the first year,⁷ and the development of structure plans and subsequent layout plans for Tabwakea North and New Banana. The plots will be released as leaseholds for 25 years, with an option of renewal for second and third 25-year periods (hence, 75 years in total), subject to meeting the conditions of the leasehold agreement. The leased land will be allocated for (i) residential purposes, (ii) business purposes, (iii) investments, and (iv) community and special uses. The plot sizes are a quarter of an acre; the current lease payment is \$1,129.50 per acre per year for business leases, and \$874.50 per acre per year for residential leases.

10. The Government needs to take further action on several land management issues so as to facilitate the proper implementation of the new land management system. First, outstanding

³ Government of Kiribati. 2003. *National Development Strategies 2004–2007: Enhancing Growth and Ensuring Equitable Distribution*. Tarawa.

⁴ ADB. 2004. *Technical Assistance to the Republic of Kiribati for Preparing the Outer Island Growth Centers Project*. Manila (approved on 2 December).

⁵ Formerly known as National Aero Space Development Agency (NASDA).

⁶ ADB 2003. *Technical Assistance to the Republic of Kiribati for Supporting Land Use Management on Kiritimati (Christmas) Island*. Manila (approved on 16 December). This TA produced a land management system together with a general land-use plan, a detailed land-use plan for priority areas, and a land valuation system, supported by computerized land database and GIS mapping systems.

⁷ The first-year target of 300 plots will be allocated as follows: 150 plots for residents of Kiritimati and 150 plots for residents of South Tarawa and Betio.

total land rent payments from leaseholds on Kiritimati Island have escalated from about A\$325,000 in 2003 to more than A\$600,000 in 2006. Second, squatters increased from about 50 families in 2003 to more than 200 families in 2006. Third, restrictions on using state land as security to obtain a mortgage under the existing legal system may cause constraints in securing loans to build houses and/or to do business. These key issues should be resolved so that they do not hamper the overall economic development of Kiritimati Island.⁸ The Cabinet's endorsement of the new land management system was a very important step, as land is a sensitive issue in the I-Kiribati sociocultural order. The system should be used as a blueprint for developing land for housing, business, investments (industry, tourism, etc.) and community purposes, so as to foster economic growth on the island.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

11. The purpose of the TA is to provide policy advice and guidance in achieving sustainable economic growth and social development on Kiritimati Island. The TA will support the design of a population policy as well as the implementing of a land development program for the island. Therefore, the TA has two major implementation components: (i) population policy and (ii) land development program on Kiritimati Island. The TA framework is in Appendix 1.

12. **Population Policy.** The strategic objective of the population policy component will be to stabilize population growth in order to ensure balance between population and resources, which will lead to improved living standards and wellbeing for the local population. The population policy component will address both sides of the balance between population and resources; i.e., it will support strategies to increase the value of human resources—including improved health, education, living conditions, and increased employment opportunities—and will lead to a reduction in the population growth rate, which in turn will lead to economic growth, social progress, and raised living standards. The impacts of this component will be an established, comprehensive population policy for Kiribati; an integrated strategy to tackle squatters; well-conceived incentives to voluntarily resettle Kiritimati Island; and improved public health. The outcomes will be enhanced welfare as the total population stabilizes by 2020–2025, fewer squatters, substantial and effective voluntary resettlement to Kiritimati Island, and population health adequately considered in the economic development.

13. **Land Development Program.** The TA will support implementation of the main components of the agreed land management system—particularly the pilot activities to release 300 plots in the first year. The TA will also prepare detailed layout plans for the proposed Tabwakea North and New Banana townships. The expected TA impacts will be improved overall land use management and land development programs—including an integrated land and infrastructure development. The outcome of this coordinated land development program on Kiritimati Island will be settlements and townships that are properly planned and more environmentally sustainable.

14. The key outputs of the proposed TA will be in two broad categories. The population policy component will have the following outputs: (i) improved population policy based on the results of the 2005 population census, (ii) documentation on the voluntary resettlement plan from South Tarawa to Kiritimati Island, (iii) an integrated strategy to tackle squatters, and (iv)

⁸ The Government has put some efforts into addressing these three major issues. Public consultation meetings were organized by the Ministry of Line and Phoenix Islands Development (MLPID) on 24 and 28 August 2006. These were followed by wider consultations.

economic analysis of the health facility on Kiritimati Island. The land development program will have the following outputs: (i) a land development program for priority areas incorporating essential infrastructure, and detailed layout plans for Tabwakea North and New Banana townships; (ii) an established land release program, improved land administration system, improved computerized data management system; and (iii) updated legislation and legal systems to improve land security and land development.

B. Methodology and Key Activities

15. Main Component 1: Population Policy.

- (i) **Subcomponent 1: population policy.** This will focus on designing a comprehensive population policy to achieve population stability by 2020–2025. This process will include inter-ministerial workshops as well as village (local) workshops to increase awareness of the issues and problems associated with high population density and rapid population growth. Issues related to squatters will be also discussed. The results of the 2005 population census will be analyzed and considered in the population policy subcomponent.
- (ii) **Subcomponent 2: voluntary resettlement plan.** This will involve the conduct of a rapid review of previous voluntary resettlement from South Tarawa to Kiritimati Island. This TA subcomponent will also conduct a survey and a participatory workshop to review the current situation with resettlement from South Tarawa to Kiritimati Island. A strategic plan to facilitate voluntary resettlement will be prepared, including an outline of the process by which such resettlement will occur.
- (iii) **Subcomponent 3: public health on Kiritimati Island.** This will center on the collection of information and an assessment of the public health situation on Kiritimati Island. In addition, a proposal will be prepared on how to maintain public health conditions in view of the anticipated increase in population on Kiritimati Island.

16. Main Component 2: Land Development Program.

- (i) **Subcomponent 1: land planning and infrastructure coordination.** This subcomponent will focus on developing an integrated land and infrastructure development program for priority areas. The activity will consist of designing the institutional setup, preparing a detailed plan of the land development areas and the proposed townships, and incorporating infrastructure development (particularly roads, water and sanitation, and electricity) into the plans.
- (ii) **Subcomponent 2: land survey and administration.** This will involve the implementation of land development plans at the proposed development sites. The activities will cover facilitating field marking of plots, a land release program that will be supported by a range of land administration systems, land registration, and an improved land information system. Overall, this subcomponent will facilitate land releases and the transfer of land to applicants, so as to meet the demand targets.
- (iii) **Subcomponent 3: land regulations.** This subcomponent will strengthen the legal basis of the land development program, including updating of the State Land Act, 2001; preparation of a strategic plan to formally allow the lease of state lands on Kiritimati Island; and review and update the State Lands Act and Land Planning Ordinance where appropriate.

C. Cost and Financing

17. The total cost of the TA is estimated at \$730,000 equivalent. ADB will provide financing in an amount of \$630,000. The TA will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. The Government will provide financing of \$100,000 to cover office accommodation, counterpart staff in the form of a main liaison person and others as required and their transport, part of the survey costs, and office space. Detailed cost estimates are in Appendix 2.

D. Implementation Arrangements

18. The Ministry of Finance and Economic Development (MFED) will be the Executing Agency, and the Ministry of Environment, Lands, and Agriculture Development (MELAD) and Ministry of Line and Phoenix Islands Development (MLPID) will be the Implementing Agencies. The Government will contribute counterpart staff, office space and administrative support on Kiritimati Island as well as in Tarawa. Close coordination will be maintained with MFED and MELAD in Tarawa, as well as MLPID and the Land Management Division (LMD) on Kiritimati Island. On Kiritimati Island, minimum fortnightly meetings and/or seminars will be held with the Committee for Allocation of State Land, the proposed land and service coordination group, and the Kiritimati Local Land Planning Board.

19. ADB will recruit consultants in accordance with ADB's *Guidelines on the Use of Consultants* (April 2006, as amended from time to time). Two consulting firms (one for the population policy component, and the other for the land development program component) will be selected through the quality and cost-based selection (QCBS) method. Equipment for the TA will be procured by the consultants in accordance with ADB's Guidelines for Procurement and will be handed over to the Executing Agency upon completion of TA. Outline Terms of Reference for the consultants are in Appendix 3.

20. The population policy component will require 9 person-months of international consulting services, consisting of (i) a demographer (team leader), (ii) resettlement and social safety specialist, (iii) a health economist; and (iv) a national consultant as workshop facilitator for 2 person-months.

21. The land development program component will require 8 person-months of international consulting services, consisting of (i) a land/urban development planner (Team Leader), and (ii) a geographical information system (GIS) expert, and (iii) a national consultant, i.e. a computer systems analyst for 2 person-months.

22. The two TA components will be implemented over a 12-month period from April 2007 to March 2008. The team leader of each TA component will brief senior government officials in Tarawa. A workshop discussing progress and issues arising in TA implementation will be organized for relevant stakeholders.

IV. THE PRESIDENT'S DECISION

23. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$630,000 on a grant basis to the Government of Kiribati for Integrated Land and Population Development Program on Kiritimati Island, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact Stability of total population by 2020–2025, voluntary resettlement to Kiritimati Island properly undertaken, and population health adequately factored into economic development</p> <p>Improved overall land use management and land development program—including an integrated land and infrastructure development</p>	<p>Formulation of population policy to guide population stabilization; strategic plan for voluntary resettlement prepared</p> <p>Improvement of land development program to complement government land release program</p>	<p>2005 population census, statistical data, government policies, interministerial and village-level consultations and workshops</p> <p>Reports on TA 4257-KIR: Supporting Land Use Management in Kiritimati Island; Cabinet papers related to land development program; related government policies</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Government's continued commitment to outer island development, population stabilization and redistribution, and improving people's welfare • Land development program remains a priority on Kiritimati Island; willingness to adopt TA recommendations <p>Risk</p> <ul style="list-style-type: none"> • Political situation jeopardizes proposed actions
<p>Outcome Establishment of a comprehensive population policy for Kiribati and a well-conceived plan of voluntary resettlement to Kiritimati Island, resulting in improved public health</p> <p>Coordinated land development program in Kiritimati that leads to environmentally sustainable and properly planned townships and settlements</p>	<p>Population policy that provides adequate guidance on population control prepared; planning for voluntary resettlement to Kiritimati Island formulated; population health program considered in economic development planning.</p> <p>Land development program prepared; coordinated actions among relevant agencies established to facilitate implementation of the program</p>	<p>Economic reports and official statistics of the Governments, and international development agencies</p> <p>Discussions and consultations with related government agencies</p> <p>Report on TA 4257-KIR: Supporting Land Use Management on Kiritimati Island</p> <p>Records from the ministries responsible for development coordination and land use management</p> <p>Feedback from planning agencies and consultation with other agencies</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Government commitment to implement the TA outputs and recommendations • Continued Government support for improved population policies and land development <p>Risks</p> <ul style="list-style-type: none"> • Inadequate availability of human and financial resources • Weak coordination among agencies responsible for integrated land development program
<p>Outputs</p> <ul style="list-style-type: none"> • Draft population policy based on stakeholder consultations • Integrated strategy to tackle squatters 	<p>Draft population policy prepared</p> <p>Draft strategy to tackle squatters</p>		<p>Assumptions</p> <ul style="list-style-type: none"> • Government commitment to implement the TA outputs and recommendations

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Assumptions and Risks
<ul style="list-style-type: none"> • Strategic plan of voluntary resettlement from South Tarawa to Kiritimati Island • Economic analysis in health facility on Kiritimati Island • Land development program incorporating infrastructure needs and an integrated land administration system • Detailed land use plan for townships • Improved land-related legislation changes to support land development program • Improve computerized data management 	<ul style="list-style-type: none"> Draft strategic plan for voluntary resettlement approved Economic analysis of health facility prepared and applied Coordinated land development program established Detailed land use plan for townships approved State Land Act and Land Planning Ordinance amended Compatibility of computerized land use management database in Kiritimati and Tarawa 		<ul style="list-style-type: none"> • Relevant agencies committed to population policies and land development program <p>Risks</p> <ul style="list-style-type: none"> • Inadequate human and financial resources available • Relevant agencies fail to coordinate integrated land development program
<p>Activities and Milestones</p> <p>A. Population Policy</p> <ul style="list-style-type: none"> • Design of effective population policy • Development of a strategy to tackle issues related to squatters on Kiritimati Island • Strengthening management capability of concerned government agencies in population program implementation, particularly health • Improved awareness among key sector stakeholders on the implications of a youthful population on resource allocation • Strengthened Government institutional capacity to develop strategies and programs to address problems posed by a rapid population growth • Implementation of health and population components of the population policy <p>B. Land Development Program</p> <ul style="list-style-type: none"> • Preparation of a land development program, including agreement of priority areas with service providers and service provision • Land survey in place; key land planning initiatives prioritized and launched • Land administration and other requirements • Upgrade Kiritimati Island Land Management Division server and make main data programs compatible with the system in Tarawa Land Management Division • Detailed land use plan for the proposed townships in Tabwakea North and New Banana • Changes identified for legislation, including timeframe • Undertake seminar and/or workshop program in Tarawa and Kiritimati Island 			<p>Inputs</p> <ul style="list-style-type: none"> • ADB: \$630,000 • Government: \$100,000

ADB = Asian Development Bank, TA = technical assistance.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Population Policy	
a. Consultants	
i. Remuneration and Per Diem (International)	207.0
ii. Remuneration and Per Diem (National)	12.0
iii. International and Local Travel	25.0
b. Reports and Communications	5.0
c. Equipment ^b	2.0
d. Workshops, Seminars, and Conferences	8.0
e. Vehicle Rental ^c	9.0
f. Surveys	3.0
g. Miscellaneous Administration and Support Costs	5.0
h. Contingencies	40.0
Subtotal (A1)	316.0
2. Land Development Program	
a. Consultants	
i. Remuneration and Per Diem (International)	184.0
ii. Remuneration and Per Diem (National)	12.0
iii. International and Local Travel	25.0
b. Reports and Communications	5.0
c. Equipment ^b	10.0
d. Workshops, Seminars, and Conferences	10.0
e. Vehicle rental ^c	9.0
f. Surveys	10.0
g. Miscellaneous Administration and Support Costs	5.0
h. Contingencies	44.0
Subtotal (A2)	314.0
Subtotal (A)	630.0
B. Government Financing	
1. Office Accommodation and Transport	35.0
2. Remuneration and Per Diem of Counterpart Staff	46.0
3. Survey	15.0
3. Other	4.0
Subtotal (B)	100.0
Total	730.0

^a Financed by the Japan Special Fund, funded by the Government of Japan

^b Equipment for component A (population policy) will include statistical software. Equipment for component B (land development program) will include a plotter, and a reflector—an additional device for total station (a total station is an optical instrument used in modern surveying. It is a combination of an electronic theodolite, an electronic distance measuring device and software running on an external computer).

^c Vehicle rental is needed because there is no convenient public vehicle. Distance between hotel and offices is far. Therefore, there is a need to increase mobility of the consultants. Two teams will need one vehicle each during their stay, i.e., 6 months for the population team and 6 months for the land use management team. The cost of vehicle rental is about \$50.00/day.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The consultants will ensure that all works and outputs under the technical assistance (TA) comply fully with all relevant policies and guidelines of the Asian Development Bank (ADB).

2. Each of the consultant teams will be responsible for submitting the following reports: (i) an inception report to be submitted at the end of the first month of TA implementation; (ii) an interim report to be submitted by the end of month 3, covering work completed during the first 3 months of the TA; (iii) a draft final TA report to be submitted 2 weeks before the end of TA implementation; and (iv) a final TA report to be submitted within 4 weeks after the final tripartite review meeting incorporating comments of ADB and the Government.

A. Population Policy

1. Demographer and Team Leader (international, 4 person-months)

3. An experienced demographer with strong statistics background will be recruited to assist the National Statistical Office with analyzing the results of the 2005 population census. Based on the analysis, the team leader, in coordination with other consultants, will formulate the population policy for Kiribati in line with the national development strategies. Specifically, the team leader will:

- (i) analyze 2005 population census data, and provide summary tables that will be useful for drawing up population policy;
- (ii) analyze past population trends and forecast future population levels;
- (iii) list and describe the issues and problems related to high population growth and high population density;
- (iv) design an action plan for the Government to stabilize population growth;
- (v) discuss and draw an integrated strategy to tackle squatter problems;
- (vi) conduct local community workshops by engaging national consultants from, but not limited to, local nongovernmental organizations and civil societies; and
- (vii) prepare and submit a final report, which should include, but not be limited to, the following: overview of population and development linkages, population dynamics and the balancing equation, interpreting population growth rates, understanding population projections, the impact of different fertility, mortality and migration rates on population size, demographic transition theory, determinants of fertility (including the Davis and Blake model), theories of fertility decline, wealth flow theory and changing perceptions of the value of children (including Caldwell theories), urbanization and rural/urban migration, factors influencing fertility, mortality and migration rates, monitoring population trends, short-term and long-term population indicators, and other issues related to population.

2. Resettlement and Social Protection Specialist (international, 3 person-months)

4. The resettlement and social protection specialist will undertake the following activities:

- (i) review and collect statistics on migration to Kiritimati Island, focusing in particular on internal migration from South Tarawa to Kiritimati;
- (ii) analyze the trend and forecast the future population of Kiritimati Island;
- (iii) review and collect statistics and other information on squatters on Kiritimati Island;

- (iv) review and analyze any existing resettlement plan for Kiritimati Island;
- (v) review and analyze unemployment, poverty, and social issues, and prepare a rapid social and poverty assessment for Kiritimati Island; and
- (vi) In close consultation with the Ministry of Finance and Economic Development (MFED), the Ministry of Environment, Lands, and Agriculture Development (MELAD), and the Ministry of Line and Phoenix Islands Development (MLPID), assist with formulating the integrated resettlement strategy to deal with squatters on Kiritimati Island.

3. Health Economist (international, 2 person-months)

5. The expert is expected to work closely with MFED in conducting economic analysis to identify the optimal size of the health facility and the sustained size of the population on Kiritimati Island. The expert's specific tasks will be to:

- (i) review the existing health facility on Kiritimati Island and assess the existing health and family planning services;
- (ii) review and analyze the logistics and procurement of medicines;
- (iii) identify and estimate the amount of all government resources supplied to the health clinic on Kiritimati Island;
- (iv) identify and estimate the level of household expenditures being allocated to basic health services on Kiritimati Island and the outer islands;
- (v) formulate strategies for various communities to increase involvement in the Government's population and health programs; and
- (vi) determine the optimal population size and the optimal size of the health facility; provide policy guidance for the optimal level of medical facility to sustain health condition of the residents of Kiritimati Island.

4. Workshop Facilitator (national, 2 person-months)

6. A national workshop facilitator will be recruited to assist the international consultant team in undertaking consultation meetings and workshops. The workshop facilitator will act as a local interpreter and resource person to facilitate the work of the international consultants. The specific responsibilities of the local facilitator are to:

- (i) carefully prepare each set of consultations taking into consideration participants, timing, venue, "buy-in" to any existing consultative process, follow-up, and reporting on the consultations;
- (ii) help direct discussions at population policy consultation workshops toward strengths and weaknesses, setting priorities, sequencing, and therefore toward actually producing a population policy in a participatory manner; and
- (iii) assist the responsible Government staff by drawing up guidelines to sustain the consultation process beyond the project consultation workshops.

B. Land Development Program

7. As of August 2006, around 150 plots located in London as well as the London–Tabwakea corridor and Poland had been surveyed by the Kiritimati Land Management Division (LMD). The respective boundaries of these plots were marked and delineated on the ground. These priority plots are located in areas where basic infrastructure (particularly water supply and electricity) are readily available. The TA will focus on facilitating both the planning for and the

supply of the rest of 450 plots, and will prepare detailed physical layout plans for Tabwakea North and New Banana townships, land-related regulations, and land administration.

8. This TA subcomponent will be implemented in three phases

- (i) **Phase 1 (months 1–3):** (a) prepare land development program including agreement of priority fronts with service providers and service provision, (b) conduct land survey, (c) set land administration, and (d) upgrade the LMD Kiritimati server. Upon completion of phase 1, prepare an implementation plan to guide land planning and development activities during phases 2 and 3.
- (ii) **Phase 2 (months 4–9):** LMD Kiritimati to implement land planning and land survey as set out in the implementation plan, and adopt land administration processes so that the agreed plot release targets can be met.
- (iii) **Phase 3 (months 10–12):** (a) review progress on physical planning, land survey and coordination of infrastructure provision; (b) assess application of procedures in land release program against criteria, document process and recommend adjustments; and (c) identify and agree on changes required to update the State Land Act and Land Planning Ordinance to suit the present and future needs.

1. **Land/Urban Development Planner and Team Leader** (international, 6 person months)

9. The consultant will work closely with the senior government officials, and other stakeholders to undertake the tasks of preparing and implementing the land development program. The consultant will also organize meetings and workshops/seminars, assist the implementing agencies in preparing public notices to facilitate implementation of the program, and assist in procuring equipment. The tasks of the consultant will include:

10. **Land Planning and Infrastructure Development.**

- (i) Review general land development program including physical layout plans and structure plans for Tabwakea North and New Banana prepared under the previous TA.¹ Prepare and agree on detailed land development program for 2007–2012, including service, budget, stakeholders' responsibility, and coordination implications. Identify key activities to achieve land development target, including target dates. Present the above as a land development program for endorsement by key stakeholders.
- (ii) Review the available infrastructure (water supply, sanitation, power supply, and telecommunication) in the proposed development areas and the proposed townships. Identify infrastructure constraints (considering environmental sensitivity—particularly shallow groundwater and proximity to the lagoon).
- (iii) Identify constraints and opportunities in institutional arrangements to achieve targets in land development program. Set out the necessary institutional arrangements and responsibilities, confirming the leading role of MLPID in the implementation of the new land management system, and set a timeframe. Assist with strengthening the coordination role of MLPID.
- (iv) Facilitate the establishment of a land development and infrastructure coordination committee on Kiritimati Island that includes representatives from

¹ ADB 2003. *Technical Assistance to the Republic of Kiribati for Supporting Land Use Management on Kiritimati (Christmas) Island*. Manila (approved on 16 December).

MLPID's public works department (water and sanitation, civil works, and power sections), LMD Kiritimati, and the Telecom Services Kiribati Limited (telecommunications), and other related agencies.

11. Land Survey and Administration.

- (i) In coordination with the infrastructure coordination committee, MELAD, and MLPID, mobilize land planning and survey resources to work on the priority fronts agreed upon, i.e., (a) plans of 300 plots to be surveyed and released in year 2 to year 4, including the basic infrastructure requirements, (b) master plans and detailed physical layout plans for the townships in Tabwakea North and New Banana.
- (ii) Consult with other professionals within the government agencies (e.g., civil engineers, hydrologists, and architects) in the production of detailed plans, including land capability studies, environmental assessment, models, and cost estimates for consideration by agencies concerned to ensure constraints and opportunities (e.g., service lines, existing and future roads, public access setbacks) are considered in the planning process. The plan should not only be functional, but also culturally appropriate, compatible with the natural environment, and consider the capacity of groundwater resources.
- (iii) Review land administration aspects of the year 1 land release program, including the role of the resettlement committee, the Central Land Planning Board, the Committee for Allocation of State Lands (CASL), the Kiritimati Urban Council, the MLPID, and the Kiritimati Local Land Planning Board in the program. Identify constraints and opportunities to improve the procedure of the land release program, including the application process, the CASL approval vis-à-vis the eligibility criteria, land allocation and land administration, and establishment of necessary databases in Access and MapInfo.

12. Land Regulations.

- (i) Identify and prepare regulatory requirements that need to be put in place to facilitate the implementation of the land development program including (a) follow-up in updating the State Land Act initiated during the previous TA,¹ (b) preparation of a strategic plan as required by the State Land Act, and other statutory requirements under the Land Planning Ordinance, and (c) in coordination with the attorney general's office and the agencies concerned, review related acts and ordinances and assist with preparing regulations.
- (ii) Identify key land administration that needs improvements to underpin the land release and development program. This will include (a) reviewing lease contracts and setting land values, and (b) reviewing restrictions imposed by the State Lands Act on using leasehold land as security for mortgages (as such restrictions may prevent people from borrowing money from banks).² Subsequently, undertake consultations and discussions with the Development Bank of Kiribati and ANZ Bank in Tarawa on this matter, and update the State Lands Act, as necessary, in coordination with the attorney general's office.

² Cabinet has decided that land would be leasehold. However, since the lease payment (i.e., A\$218.63 per ¼ acre a year for business lease) is much lower than the potential market rate, the secondary lease contract market will not grow unless the Government liberalizes the sublease market.

2. Geographical Information System (GIS) Adviser (international, 2.0 person months in phase 1)

13. Working with LMD Kiritimati and key local stakeholders, the GIS adviser will:

- (i) Expand the integrated Access–MapInfo LAPLISQuery customer service tool to enable provision of accurate data on plots allocated to applicants by the CASL, as well as information on the status of lease and rents (such as the lease commencement date, annual and monthly lease, lease payments outstanding, and balance to date).
- (ii) Assist LMD Kiritimati with improving the LAPLIS Access query to be able to calculate monthly lease payments in addition to annual rent, which is currently being calculated based on the data being queried.
- (iii) Amend LAPLISQuery so that LMD Kiritimati can make other planning queries on lands, such as inquiries on land use zonings.
- (iv) Ensure that Kiribati Land Information System (KLIS) in Tarawa and LAPLISQuery on Kiritimati Island are compatible in design and functionality so that master files and data can be uploaded at regular intervals by staff in the Land Management HQ office in Tarawa. Identify the process by which this will happen so that it will be sustainable after TA completion.
- (v) Prepare training manuals and train staff in Access database software and Visual Basic in order to improve the sustainability of LMD Kiritimati operations.
- (vi) In close coordination with the population policy team leader, create computerized maps that can track population growth, natural resource potential, environmental hazards and other information.
- (vii) Prepare training reports on LAPLIS Query, LAPLIS, and Visual Basic, and an end-of-visit report.

3. Computer Systems Analyst (national, 2 person-months in phase 1)

14. Working with key counterparts in LMD Kiritimati, the computer systems adviser will

- (i) Assess the problems related to the instability of the server, hardware and software, including the tape drive. Diagnose Windows 2000 NT server problems, including failed disc drives and other hardware and software issues. Assess sustainable options to repair, upgrade, and maintain any new hardware and software with the team leader, GIS adviser, and LMD Kiritimati.
- (ii) Implement server changes, including upgrades of software and/or hardware. Implement the best sustainable option for backing up the system, including security password controls. Ensure that all computers related to land use management are connected to the network system under the new or upgraded server.
- (iii) Train counterpart in server backup and maintenance and passwords control. Train remaining professional staff in basic computer maintenance, including maintaining the integrity of shared data files.
- (iv) At the end of the input, provide a report on the above, including guidelines for server troubleshooting, and computer and basic systems maintenance procedures, so as to enhance the sustainability of LMD Kiritimati hardware, software, and general operations. Provide recommendations to enhance the sustainability of the computer system.