

KIRIBATI

Capital:	Tarawa
Land Area (km²)	726
Sea Area/EEZ (million km²)	3.6
Islands (No.)	33 (20 are inhabited)
Population (No.)	90,700
Annual Growth (%)	2.5
Density (inhabitants/km²)	112
Rural Population (% of total population)	63
GDP (US\$ million)	46.3 (1996)
Agricultural GDP (% of total GDP)	9
GDP per caput (US\$)	592 (1996)
Currency:	Australian Dollar

A. General

Kiribati is an archipelagic nation comprising 33 atolls. Kiribati has a total land area of only 810 km² but with a surrounding EEZ of about 3.5 million km². The country is divided into three widely separated island groups - the Gilbert Group in the west, the Phoenix Group in the centre, and the Line Islands in the east. The distance between the eastern and western extremes of the EEZ is over 4,500 km.

Water in Kiribati is scarce and there are no rivers, lakes or other freshwater impoundments. Groundwater resources are limited and rainfall is light. Natural disasters in the form of strong westerly winds (November to March) and droughts are common. The atolls and islands are low-lying making them vulnerable to sea level rise and the vagaries of typhoons.

The population of Kiribati is about 90,700¹², over ninety percent of which live in the Kiribati Group. South Tarawa - the capital and commercial centre – accommodates over forty percent of the total population.

B. The Agricultural Sector: Constraints and Strategic Options

Agriculture in the Economy. Kiribati's economy is heavily dependent on the primary sector, agriculture and fisheries accounting for 17.6% of GDP in 1994 and for 21.5% of GDP in 2000. The subsistence agricultural and fisheries sectors play a predominant role in employment and in facilitating food security of the country.

On average, during the period 1996-1999, the total value of agricultural exports and imports were around US\$3 and US\$13 million, respectively, resulting in a deficit of 10 million dollars. The corresponding export/import ratio was 23%. Agricultural imports in value terms, during that period, averaged 37.3% of total imports, while agricultural exports were about 44.3% of total exports.

¹² SPC Selected Pacific Economies - a Statistical Summary (SPESS), 2002.

Land Use, Farming Systems and Institutions. Agriculture occupies an important part of the daily activity of the Kiribati people and involves the cultivation of a number of crops and raising a limited number of pigs and chickens. Crop production is primarily subsistent, crops comprising coconut, babai (swamp taro), breadfruit, pandanus, banana, pumpkin, sweet potatoes and papaw. Home gardening had been introduced but constrained by lack of tools, seeds, fertilizers and pesticides.

The traditional farming system is characterized by groves of coconut trees with various layers of crops inter-planted between the trees. A significant feature of the system is the presence of family owned pits in which swamp taro and giant taro are cultivated. The use of the pits facilitates the plants ability to access the thin water lens. An important activity in the cultivation of taro is that of regularly adding organic matter to the base of the plants around which coconut leaves have been thatched to retain the material. The coconut tree dominates agricultural production. It provides a daily component of the diet (food and drink) as well as household cash, especially important for the outer islands. Copra exports constitute a significant proportion of the country's export earnings despite the currently very low prices.

Subsistence and small-scale artisanal fishing are conducted from traditional canoes driven by sail or paddle, from plywood canoes powered by outboard motor and from larger outboard-powered skiffs. Most inshore and coastal fishing activity in Kiribati is for subsistence purposes. Impoundment of milkfish (*Chanos chanos*) fry at spring tides occurs in brackish water lagoons on some islands. *Eucheuma* seaweeds, (*Kappaphycus alvarezii*), have been cultured in Kiribati since the early 1980s and farms established in suitable atolls throughout the country's three island groups.

The country has no forest resources as such but only a few vegetation types. These (mostly in scattered patches) although restricted in area and density play important roles such as: preventing coastal erosion, maintaining soil fertility and the nutrient cycle, providing food, fuel-wood and building material for the local people.

Major Challenges and Constraints. The government of Kiribati does not have long-term development policies for agriculture, fisheries and food security. Mid-term sectoral development strategies outlined in its three-year NDS documents have been based mainly on sector-expressed priorities rather than on objective-implementation performance analysis.

Kiribati has limited natural resource base, especially land and fresh water for development. Kiribati's atoll soils are generally thin, coralline and lacking in a number of plant nutrients - particularly Nitrogen, Phosphorus, Potassium and Calcium - and micronutrients. The narrow islands and islets are over-exposed to wind and salt sprays. There is no running water and the fresh water-lens is thin and highly susceptible to pollution by inorganic farming practices and intensive livestock production.

The atolls and islands are widely scattered and sparsely populated. The domestic market is thus small with little potential for economies of scale. Sea and air transport between atolls/islands, is inadequate both in suitability and regularity. Access to major international markets is expensive and hard to arrange. The local and overseas telecommunication services are unreliable and expensive. There are no established fresh produce markets at the urban centres. Although the land tenure system facilitates household access to land for planting food crops, has also fragmented holdings into small lots, which constraints development of more commercially oriented production.

The local people generally have limited understanding and experience with business concepts and practices. The labour force lack job skills needed to support economic development. In terms of improving nutrition, it has been difficult to persuade the I-Kiribati population to consume introduced vegetables, particularly the leafy types. On the other hand, consumption of introduced starchy foods like rice and flour has overtaken that of their locally produced counterparts.

On the fisheries front, Kiribati could take more advantage of its large EEZ than it is currently doing. Kiribati lacks adequate onshore facilities to attract higher levels of tuna transshipment by foreign vessels. Although funds received from issuing licenses to foreign fishing vessels represent Government's major revenue source, the potential for increasing local exploitation of the oceanic resources remain huge. However, private sector does not yet have the information necessary for planning or the means needed to work towards realizing the potential.

Strategic Options. Kiribati's traditional farming system is still widely adopted across the atolls and there exists a wealth of indigenous knowledge on viable atoll agricultural production technologies. Added to this are information generated through externally funded projects including the UNICEF home gardening project, EU PRAP Atoll Farming Systems project, SPC/FAO agro-forestry project as well as the on-going work of the FSP.

Experience gained and information gathered from these projects, have led DOA to concentrate at the present time on opportunities for increased production of: eggs, tomatoes, bananas, cabbage, cucumbers, papaya and eggplant. Emphasis is being put on encouraging wider adoption of improved techniques, applying effective environmentally friendly pest control methods and improved marketing organization and skills.

Scope exists for privatization of the crop nursery network across the atolls and of the livestock breeding facilities at Tarawa. Diversifying the coconut industry to coconut timber production (and perhaps downstream processing) and to other coconut products e.g. hydrogenated oil, shampoo etc., represent opportunities. The DOA has retained a consultant to investigate the feasibility of establishing a coconut timber industry.

With 3.5 million square kilometres of EEZ, Kiribati has the second largest EEZ in the world. Kiribati's marine resources therefore have the potential to provide the basis for a major domestic industry as well as generating large flows of factor income.

Agreement has been reached between Government and the Norwegian Cruise Line (NCL) for a weekly cruise to Tabuaeran in the Northern Line Group bringing in tourists from the US mainland and Hawaii. This represents a good opportunity for increasing trade in handicrafts. However, marketing would be greatly enhanced by the provision of appropriate infrastructure on the island.

Kiribati is a member of *Codex Alimentarius*. Kiribati intends to develop its food standards in line with the provisions of *Codex*. When completed and approved by Government the food standards would enhance Kiribati's potentially lucrative industry in exploiting, processing and exporting its fisheries resources.

C. Project Interventions: Income Generation Activities

I. Strengthening the Development of Food Crop Production

This project will focus on increasing domestic food production through the upgrading of the nurseries in Tarawa the outer islands, production of planting materials and distribution to farmers and marketing of the produce. Initial supplies of planting materials will be sourced from the SPC germplasm collections and vegetable seeds will be imported from reputable overseas/local seed suppliers. These materials will be propagated and multiplied in the nurseries and distributed to farmers. Likewise, exotic fruit and leafy trees e.g. chaya and drumstick that have proved to survive well under atoll conditions will be propagated, multiplied and distributed.

The local contribution includes: Local staff supervising the project, storage and training facilities, land for nurseries and office for project staff.

The cost and financing plan are indicative as the implementation and cost details will be worked out in detail with the RPMU (see TOR for Project Co-ordinator) and MNRD in Kiribati.

Success Indicators

- Increased supply of planting materials for distribution to farmers;
- Increased domestic food production;
- Savings in foreign exchange from reduction in imports;
- Family income generation through marketing of surplus farm produce;
- Easy access to fruits and vegetables will in turn results in consumption of nutritious foods thus contribute to improved nutrition;
- Farmers trained and gain knowledge in alternative farming techniques;
- Expanded employment opportunities in the farming sector as a result of the enhanced income generating capacity of the project participants; and
- Enhanced Income source for the local farmers.

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