



# Kiribati

FAO, at the request of its member countries, regularly monitors the world's forests and their management and uses through the Global Forest Resources Assessment (FRA). This country report is prepared as a contribution to the FAO publication, the Global Forest Resources Assessment 2015 (FRA 2015).

The content and the structure are in accordance with the recommendations and guidelines given by FAO in the document Guide for country reporting for FRA 2015 (<http://www.fao.org/3/a-au190e.pdf>). These reports were submitted to FAO as official government documents.

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## Report preparation and contact persons

### Contact persons

The present report was prepared by the following person(s)

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| N/A                            | N/A                 | N/A   | N/A    |
| N/A                            | N/A                 | N/A   | N/A    |
| N/A                            | N/A                 | N/A   | N/A    |

### Introductory Text

Place an introductory text on the content of this report

Kiribati is comprised of 33 coral atolls in 3 main groups of islands; the Gilbert, Phoenix and Line Islands. Only 21 islands are inhabited. The total Land Area is only 811 km<sup>2</sup> (around 313 sq mi) but each of the islands is widely dispersed across a 3.5 million km<sup>2</sup> EEZ in the middle of Pacific Ocean.

Map 1. Republic of Kiribati

Tarawa Atoll, Capital

**Detailed Map of Kiribati** © Microsoft Corporation. All Rights Reserved. **Microsoft** ® **Encarta** ® **2008**. © 1993-2007 Microsoft Corporation.

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Population as of 2005 census is 92,533 with 44% residing on Tarawa Atoll, the capital. The population in 2000 was 84,494 and when compared with the figure in 2005 it represents an increase of 9.5% or 8,093 people with an average annual rate of growth of 1.8%. And there with this annual growth, the population has reached 103,000.

The main diet for I-Kiribati people include: fish, coconut, breadfruit, local root crops, imported rice, chicken and tin meat (in the form of processed fish, beef e.g. ox and palm, etc). Fish consumption per capita is one of the highest in the world-almost .5kg/day/capita. Most I-Kiribati prefer to consume more of those imported from overseas. With this change of behavior, there is high prevalence of diabetic and hypertension starting from the early age.

Kiribati which is comprised of tiny atolls still claims to have its forest in its own right and should be respected by countries that have more thick vegetation. Although our forest may not comply with international notions, they are truly forests to us and we want the world to understand it. At the regional level forest is defined as; *'trees that have a certain size of canopy, they are not agricultural and are not located in urban areas'*. Though our trees are not in this category, they provide ecological services to sustain the lives of creatures in particular

people in terms of food, shelter, medicinal purposes, etc. Kiribati is appreciating the recognition of atolls' forest by Food and Agriculture Organisation (FAO) and other United Nation conventions.

An area that is covered by coconut trees in Kiribati is classified as the first category in defining the forest and the tree is called the King Tree . Pandanus trees (the Queen Tree) falls under the second category and mangrove swamp being the third. These trees play important roles in providing: housing materials for construction, shelter for both human and species, food, protection of water reserves and coastal areas that are most affected by the climate change and sea level rise.

With the effect of climate change and sea level rise as well as the increase in population, a number of trees have eaten away due to erosion, many die and fallen off the ground due to prolong droughts, and some were chopped down for handicraft and building purposes. The rest have reached their maturity age and are starting to produce less for consumption.

While Kiribati is engaging on the FRA assignment, there are problems encountered especially in the collection of data, thus affect the quality of information on our forest. For such reasons Kiribati needs to ask for overseas assistance in the area of getting the digitized data and record on all known forest trees in Kiribati and to have them stored safely in MapInfo Computer implemented under the Remote Sensing Programme. Things like forest degradations, coastal erosions, and other important variables covered under the FRA be incorporated in the programme mentioned for use by planners in Lands Planning Section, Agriculture Research and Environment and Conservation.

Mangroves replanting scheme has already begun on affected areas of Tarawa. This is a voluntary scheme of Environment Youths Club (EYC) instigated by the MELAD and Cosmo Oil Co from Japan and further inspired by this FAO Forestry Outlook 2020 exercise. Coconut Replanting has begun in terms of providing the seedlings to outer islands. This was carried out during the campaign against food crisis in 2008. However there is a need to continue this project as it will merge with our coconut sawmilling project most probably mid year 2009.

#### Way forward

- Kiribati to await the consideration FAO SAPA to fund the Coconut Sawmilling Project as expected to start early this year 2009.
- Kiribati to await as well the consideration of FAO Samoa to assist in procuring the MapInfo programme that covers the requirements needed for the management of forestry in Kiribati.
- Increasing community participation by public awareness to get the message through the mindset of people that planting trees is their supreme responsibility and life obligation;

# Acronyms and Abbreviations

|                                 |   |
|---------------------------------|---|
| MELAD                           | Ministry of Environment, Lands and Agricultural Development |
| ALD                             | Agriculture and Livestock Development                       |
| ECD                             | Environment and Conservation Division                       |
| LMD                             | Lands Management Department                                 |
| SOE                             | State Of Environment  |
| NA                              | Not Available   |
| N/A                             | Not Applicable  |
| PIPA                            | Phoenix Island Protected Area                               |
| CBD                             | Convention of Biodiversity                                  |
| CS                              | Copra Society   |
| NS                              | Not Stated  |
| ODA                             | Overseas Development Assistant                              |
| SPC                             | South Pacific Community                                     |
| FAO                             | Food and Agriculture Organization                           |
| ISME through Cosmo Oil Co Japan | International Society for Mangrove Ecosystem                |
| EYC                             | Environment Youth Club                                      |
| MFMRD                           | Ministry of Fisheries and Marine Resource Development       |
| NGOs                            | Non Government Organizations                                |

Desk Study?

**Check "yes" if this survey is a Desk Study, "no" otherwise**

|             |     |
|-------------|-----|
| Desk Study? | yes |
|-------------|-----|

## 1. What is the area of forest and other wooded land and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 1.1 Categories and definitions

| Category   | Definition  |
|--|---|
| Forest   | Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.   |
| Other wooded land  | Land not classified as "Forest" spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of 5-10 percent or trees able to reach these thresholds ; or with a combined cover of shrubs bushes and trees above 10 percent. It does not include land that is predominantly under agricultural or urban land use. |
| Other land   | All land that is not classified as "Forest" or "Other wooded land".   |
| ...of which with tree cover<br>( <i>sub-category</i> )             | Land considered as "Other land", that is predominantly agricultural or urban lands use and has patches of tree cover that span more than 0.5 hectares with a canopy cover of more than 10 percent of trees able to reach a height of 5 meters at maturity. It includes bothe forest and non-forest tree species.                        |
| Inland water bodies  | Inland water bodies generally include major rivers, lakes and water reservoirs.   |
| Forest expansion   | Expansion of forest on land that, until then, was not defined as forest.  |
| ...of which afforestation<br>( <i>sub-category</i> )               | Establishment of forest through planting and/or deliberate seeding on land that, until then, was not defined as forest.   |
| ...of which natural expansion of forest<br>( <i>sub-category</i> ) | Expansion of forests through natural succession on land that, until then, was under another land use (e.g. forest succession on land previously used for agriculture).  |
| Deforestation  | The conversion of forest to other land use or the longterm reduction of the tree canopy cover below the minimum 10 percent threshold.   |
| ...of which human induced<br>( <i>sub-category</i> )               | Human induced conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10 percent threshold.  |
| Reforestation  | Natural regeneration or re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.   |
| ...of which artificial reforestation<br>( <i>sub-category</i> )    | Re-establishment of forest through planting and/or deliberate seeding on land already in forest land use.   |

### 1.2 National data

#### 1.2.1 Data sources

| References to sources of information | Variables | Years | Additional comments |
|--------------------------------------|-----------|-------|---------------------|
|--------------------------------------|-----------|-------|---------------------|



|   |   |                                       |                |  |
|---|---|---------------------------------------|----------------|--|
| 1 | Metz, D.W. 1996. The Mangroves of Kiribati: An Inventory, Feasibility and Management Study. Vol 1. Prepared for Agriculture Division, MNRD, Republic of Kiribati by USDA Forest Service in collaboration with South Pacific Forestry Development Programme (FAO/UNDP/RAS/92/361) Suva, Fiji. Unpublished. | Mangroves on four islands in Kiribati | 1995           | This working paper is one of a series of publications prepared during the course (1992 – 96) of the UNDP/FAO South Pacific Forestry Development Programme. This is also one of the first comprehensive study on mangroves undertaken in Kiribati. This figure may be slightly on the lower side, since the extent of mangroves found in many small islands is not available.   |
| 2 | Ward, J.D.1998. Mangroves of Kiribati A priceless resources needs protection. <a href="http://na.fs.fed.us/spfo/pubs/misc/mangroves/mangroves.htm">http://na.fs.fed.us/spfo/pubs/misc/mangroves/mangroves.htm</a>   | Mangrove in Kiribati                  | 1995           | Secondary source. Refers to 185 ha of mangroves on Butaritari  |
| 3 | South Pacific Forestry Development Programme and USDA Forest Service. 1995. Assessment of mangrove resources.   | Mangrove area                         | 1995           | Ground survey Cited in: Ward, J.D. and Metz, W.D. Mangrove forests as modifiers of the impacts of climate change on high islands and atolls in the south pacific: mobilizing people and governments to act (atolls). Pacific Islands Regional Forestry Programme. <a href="http://www.spcforests.org/Library/Mangroves/atolls/atolls.htm">http://www.spcforests.org/Library/Mangroves/atolls/atolls.htm</a> This figure may be slightly on the lower side, since the extent of mangroves found in many small islands is not available. |
| 4 | Barr, J.J.F. 1993. Technical Report on Coconut Research in Kiribati (1990-1992) Ministry of Environment & Natural Resources Development Division of Agriculture   | Plantation and natural coconut area   | 1990 1991 1992 | N/A  |
| 5 | Government of Republic of Kiribati 2004. State of Environment Report 2000-2002. <a href="http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/20.pdf">http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/20.pdf</a>   | N/A                                   | 2002           | N/A  |

|   |   |                    |      |  |
|---|---|--------------------|------|--|
| 6 | MELAD, ECD. 2006.<br>Government of Kiribati<br>National Biodiversity<br>Strategies and Actions Plan<br>to the Conference of the<br>Parties to the Convention<br>on Biological Diversity.<br><a href="http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/9.pdf">http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/9.pdf</a> | N/A                | N/A  | The country report (below) and the NBSAP - Kiribati have been cabinet approved. Both the report and the NBSAP- Kiribati reflect baseline data on the status of protected areas and the conservation of biological diversity in the context of Kiribati as an atoll nation. |
| 7 | MELAD, ECD. 2007.<br>Kiribati Country Report to<br>the Conference of Parties<br>(COP) to the Convention on<br>Biological Diversity (CBD).<br><a href="http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/93.pdf">http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/93.pdf</a>  | N/A                | 2005 | N/A  |
| 8 | GEF/UNDP/UNFCCC<br>REPUBLIC OF KIRIBATI<br>NATIONAL ADAPTATION<br>PROGRAM OF ACTION<br>(NAPA) 2007.   | Planting programme | N/A  | General information on the plantation strategy.  |

### 1.2.2 Classification and definitions

| National class                  | Definition  |
|---------------------------------|---|
| Coconut forestry                | Land occupied by coconut only   |
| Land with tree/natural woodland | Land occupied by Pandanus tectorius, Artocapus altilis, Ficus carica (wild fig), and Calophyllum inophyllum planted by man. Also includes: Fallow littoral shrubs, bushes Morinda citrifolia a, Tormefortia argentea,. Pandanus tectorius (wild) Guerttarda speciosa, and Scavola taccada Mangrove: Bruguiera gymnorrhiza; Lumnitzera littorea; Rhizophora mucronata; Sonneratia alba   |
| Areas with absence of trees     | Pond and open fields  |
| Replanting                      | Refers to replanting and planting of trees in particular coconut trees, mangroves and such to hold and protect the soil from erosion and other natural disasters and mostly to adapt and minimize adverse impact of climate change.   |
| Agro-forestry                   | Refers to forestry combined with farming. Within the Agricultural Division this section looks after food crops, medicinal plants, fuel wood, nitrogen fixation plants and other plants that are useful to households. This is where they establish mother plant from which they propagate them and sold them to households such as breadfruit, pandanus, etc however some are free for the communities, i.e. women's club, church, youths plus the feed only for starch crops |
| Rehabilitation                  | Refers to maintaining and improving the life span of coconut trees only. This happens in 1990s,   |

|  |  |
|--|--|
| Natural regenerated forests            | Land comprises of Littoral shrubs as in Table 1 with a high indication of human disturbance in regards for high demand of timber, fuel wood, and handicraft. |
| Planted forest with Introduced species | Trees such as bamboo and nitrogen fixations occupying only a limited land areas  |

### 1.2.3 Original data

| <b>Forest area</b>  |            |                  |                             |
|---|------------|------------------|-----------------------------|
| Inventory on Kiribati vegetation haven't carried out ever since therefore data provided based on estimation.  |            |                  |                             |
| Since it is estimated that 80% of the total land areas is covered with coconut it is estimated that 15% covered by other trees, bushes and shrubs while 5% used up by ponds, open fields, and building.   |            |                  |                             |
| Classes   | Percentage | 1000 of hectares | FRA classes                 |
| Land occupied by coconut only   | 80         | 64.8             | Other land with tree cover  |
| Land occupied by<br>1. <i>Pandanus tectorius</i> , <i>Artocarpus altilis</i> , <i>Ficus carica</i> (wild fig), and <i>Calophyllum inophyllum</i> planted by man.<br>2. Fallow littoral shrubs, bushes <i>Morinda citrifolia</i> , <i>Tormefortia argentea</i> , <i>Pandanus tectorius</i> (wild) <i>Guerttarda speciosa</i> , and <i>Scavola taccada</i> .<br>3. Mangrove<br><i>Bruguiera gymnorrhiza</i> ; <i>Lumnitzera littorea</i> ; <i>Rhizophora mucronata</i> ; <i>Sonneratia alba</i> | 15         | 12.15            | Forests                     |
| Areas with absence of trees: Ponds, open fields and buildings   | 5          | 4.05             | Other land and inland water |

|       |     |       |  |
|-------|-----|-------|--|
| Total | 100 | 81.00 |  |
|-------|-----|-------|--|

Fallow littoral shrubs, bushes, planted land, and mangroves were considered forest area as there is not enough data to sub-divided in other categories. Note that trees are more than 5 meters high.

|          | Most reliable, recent mangrove area estimate |      |
|----------|--|------|
|          | ha   | year |
| Mangrove | 258  | 1995 |

Source: Metz 1996.

### Forest expansion, reforestation

No specific data was available. Information about the species that are to be included in the planting strategy are presented on the comment section.

## 1.3 Analysis and processing of national data

### 1.3.1 Adjustment

#### Forest area

Not needed.

### 1.3.2 Estimation and forecasting

#### Forest area

Forest and all other classes are considered constant since 1990.

### 1.3.3 Reclassification

#### Forest area

See 1.2.3 above.








## 1.4 Data

Table 1a

| Categories | Area (000 hectares) |
|------------|---------------------|
|------------|---------------------|

|   |                              | 1990  | 2000  | 2005  | 2010  | 2015  |
|---|------------------------------|-------|-------|-------|-------|-------|
|  | Forest                       | 12.15 | 12.15 | 12.15 | 12.15 | 12.15 |
|  | Other wooded land            | 0     | 0     | 0     | 0     | 0     |
|  | Other land                   | 68.85 | 68.85 | 68.85 | 68.85 | 68.85 |
|  | ... of which with tree cover | 64.8  | 64.8  | 64.8  | 64.8  | 64.8  |
|  | Inland water bodies          | 0     | 0     | 0     | 0     | 0     |
|   | TOTAL                        | 81.00 | 81.00 | 81.00 | 81.00 | 81.00 |

Table 1b

| Categories  |  | Annual forest establishment / loss (000 hectares per year) |      |      |      | ...of which of introduced species (000 hectares per year) |      |      |      |
|---|--|--|------|------|------|---|------|------|------|
|   |  | 1990   | 2000 | 2005 | 2010 | 1990  | 2000 | 2005 | 2010 |
|    | Forest expansion                         | N/A  | N/A  | N/A  | N/A  | N/A   | N/A  | N/A  | N/A  |
|   | ... of which afforestation               | 0  | 0    | 0    | 0    | 0   | 0    | 0    | 0    |
|  | ... of which natural expansion of forest | 0  | 0    | 0    | 0    | 0   | 0    | 0    | 0    |
|  | Deforestation                            | N/A  | N/A  | N/A  | N/A  | N/A   | N/A  | N/A  | N/A  |
|  | ... of which human induced               | N/A  | N/A  | N/A  | N/A  | N/A   | N/A  | N/A  | N/A  |
|  | Reforestation                            | N/A  | N/A  | N/A  | N/A  | N/A   | N/A  | N/A  | N/A  |
|  | ... of which artificial                  | 0  | 0    | 0    | 0    | 0   | 0    | 0    | 0    |

## Tiers

| Category          | Tier for status | Tier for reported trend |
|-------------------|-----------------|-------------------------|
| Forest            | Tier 1          | Tier 1                  |
| Other wooded land | Tier 1          | Tier 1                  |
| Forest expansion  | Tier 1          | Tier 1                  |
| Deforestation     | N/A             | N/A                     |
| Reforestation     | Tier 1          | Tier 1                  |

## Tier criteria

| Category | Tier for status | Tier for reported trend |
|----------|-----------------|-------------------------|
|----------|-----------------|-------------------------|

|   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• Forest</li> <li>• Other wooded land</li> <li>• Afforestation</li> <li>• Reforestation</li> <li>• Natural expansion of forest</li> <li>• Deforestation</li> </ul> | <p><b>Tier 3</b> : Data sources: Either recent (less than 10 years ago) National Forest Inventory or remote sensing, with ground truthing, or programme for repeated compatible NFIs <b>Tier 2</b> : Data sources: Full cover mapping / remote sensing or old NFI (more than 10 years ago) <b>Tier 1</b> : Other</p> | <p><b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other</p> |
|---|--|--|

### 1.5 Comments

| Category                   | Comments related to data definitions etc   | Comments on the reported trends  |
|----------------------------|--|--|
| Forest                     | <p>The total land area included species that are shrubs, but it is not possible to define the exact extension of these areas. As most of the species mentioned in the national class of naturally wood land mainly mangrove are trees with more than 5 meters high all these area was re-classified as forest. Documentation/mapping of existing mangrove forested areas of Kiribati using GPS is under planning for 2009 but this is highly dependent on available external funds and appropriate TAs (regional or international Technical Assistants) who shall work closely with local counterparts at MELAD ECD level.</p> | <p>Not yet assessed at national level. Forecasting on land areas of trees, shrubs, bushes and mangrove forest is that they will be reduced due to rapid increase of population therefore there is a need for deforestation for new residences. Currently, MELAD ECD is engaged in mangrove replanting on the capital island (South Tarawa). There are plans to extend this mangrove replanting programme to outer islands. This would start some time this year.</p> |
| Other wooded land          | N/A  | No available data in place to adequately report on this.   |
| Other land                 | N/A  | N/A  |
| Other land with tree cover | N/A  | N/A  |
| Inland water bodies        | <p>Applied only to swamp and pond. National data mentioned 4.05 ha of inland water and open fields.</p>  | N/A  |
| Forest expansion           | N/A  | N/A  |
| Deforestation              | N/A  | N/A  |
| Reforestation              | N/A  | N/A  |

#### Other general comments to the table

Inventory on Kiribati vegetation haven't carried out ever since therefore data provided based on estimation where believe to be decreasing throughout the year. Since 80% of the total land areas covered with coconut it estimated that 15% covered by other trees, bushes and shrubs while 5% used up by ponds, open fields, and building.

## 2. What is the area of natural and planted forest and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 2.1 Categories and definitions

| Term  | Definition  |
|---|---|
| Naturally regenerated forest                              | Forest predominantly composed of trees established through natural regeneration.  |
| Naturalized introduced species                            | Other naturally regenerated forest where the tree species are predominantly non-native and do not need human help to reproduce/maintain populations over time.  |
| Introduced species  | A species, subspecies or lower taxon occurring <b>outside</b> its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could occupy without direct or indirect introduction or care by humans). |
| Category  | Definition  |
| Primary forest  | Naturally regenerated forest of native species where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.   |
| Other naturally regenerated forest                        | Naturally regenerated forest where there are clearly visible indications of human activities.   |
| ...of which of introduced species ( <i>sub-category</i> ) | Other naturally regenerated forest where the trees are predominantly of introduced species.   |
| ...of which naturalized ( <i>sub-sub category</i> )       | Other naturally regenerated forest where the trees are predominantly of naturalized introduced species.   |
| Planted forest  | Forest predominantly composed of trees established through planting and/or deliberate seeding.  |
| ...of which of introduced species ( <i>sub-category</i> ) | Planted forest where the planted/seeded trees are predominantly of introduced species.  |
| Mangroves   | Area of forest and other wooded land with mangrove vegetation.  |
| ...of which planted ( <i>sub-category</i> )               | Mangroves predominantly composed of trees established through planting.   |

### 2.2 National data

#### 2.2.1 Data sources

| References to sources of information | Variables | Years | Additional comments |
|--------------------------------------|-----------|-------|---------------------|
|--------------------------------------|-----------|-------|---------------------|

|   |  |                                       |      |  |
|---|--|---------------------------------------|------|--|
| 1 | Metz, D.W. 1996. The Mangroves of Kiribati: An Inventory, Feasibility and Management Study. Vol 1. Prepared for Agriculture Division, MNRD, Republic of Kiribati by USDA Forest Service in collaboration with South Pacific Forestry Development Programme (FAO/UNDP/RAS/92/361) Suva, Fiji. Unpublished.      | Mangroves on four islands in Kiribati | 1995 | This working paper is one of a series of publications prepared during the course (1992 – 96) of the UNDP/FAO South Pacific Forestry Development Programme. This is also one of the first comprehensive study on mangroves undertaken in Kiribati. This figure may be slightly on the lower side, since the extent of mangroves found in many small islands is not available.   |
| 2 | South Pacific Forestry Development Programme and USDA Forest Service. 1995. Assessment of mangrove resources.  | Mangrove area                         | 1995 | Ground survey Cited in: Ward, J.D. and Metz, W.D. Mangrove forests as modifiers of the impacts of climate change on high islands and atolls in the south pacific: mobilizing people and governments to act (atolls). Pacific Islands Regional Forestry Programme. <a href="http://www.spcforests.org/Library/Mangroves/atolls/atolls.htm">http://www.spcforests.org/Library/Mangroves/atolls/atolls.htm</a> This figure may be slightly on the lower side, since the extent of mangroves found in many small islands is not available. |
| 3 | MELAD, ECD. 2005. Government of Kiribati 1st Country Report to the Conference of the Parties to the Convention on Biological Diversity. MELAD, ECD. 2005. Government of Kiribati National Biodiversity Strategies and Actions Plan to the Conference of the Parties to the Convention on Biological Diversity. | N/A                                   | 2005 | The country report and the NBSAP - Kiribati have been cabinet approved and are now ready for submission to the Secretariat of the Convention on Biological Diversity. Both the report and the NBSAP-Kiribati reflect baseline data on the status of protected areas and the conservation of biological diversity in the context of Kiribati as an atoll nation.  |
| 4 | N/A  | N/A                                   | N/A  | N/A  |

### 2.2.2 Classification and definitions

| National class              | Definition   |
|-----------------------------|--|
| Natural regenerated forests | Land comprises of Littoral shrubs as in Table 1 with a high indication of human disturbance in regards for high demand of timber, fuel wood, and handicraft. |



|  |   |
|--|---|
| Planted forest with Introduced species | Trees such as bamboo and nitrogen fixations occupying only a limited land areas |
| N/A                                    | N/A   |
| N/A                                    | N/A   |

### 2.2.3 Original data

| Classes  | FRA classes           |
|--|-----------------------|
| Land occupied by <i>Pandanus tectorius</i> , <i>Artocarpus altilis</i> , <i>Ficus carica</i> (wild fig), and <i>Calophyllum inophyllum</i> planted by man.                             | Planted forest        |
| Fallow littoral shrubs, bushes <i>Morinda citrifolia</i> a, <i>Tormefortia argentea</i> , . <i>Pandanus tectorius</i> (wild) <i>Guerttarda speciosa</i> , and <i>Scavola taccada</i> . | Naturally regenerated |
| Mangroves<br><i>Bruguiera gymnorrhiza</i> ; <i>Lumnitzera littorea</i> ; <i>Rhizophora mucronata</i> ; <i>Sonneratia alba</i>  | Naturally regenerated |

|                 | Most reliable, recent mangrove area estimate |                            |
|-----------------|--|----------------------------|
|                 | 1995   |                            |
|                 | ha   | FRA class                  |
| <b>Mangrove</b> | <b>258</b>                                   | <b>natural regenerated</b> |

Bamboo introduced from Australia found in agriculture research in the main land and Butaritari in the northern island both are not common, just occupying a small land area.

Rubber is not available in the country

## 2.3 Analysis and processing of national data

### 2.3.1 Adjustment

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## 2.3.2 Estimation and forecasting

## 2.3.3 Reclassification

## 2.4 Data

Table 2a







| Categories  |                                    | Forest area (000 hectares) |       |       |       |       |
|---|------------------------------------|----------------------------|-------|-------|-------|-------|
|   |                                    | 1990                       | 2000  | 2005  | 2010  | 2015  |
|    | Primary forest                     | 0                          | 0     | 0     | 0     | 0     |
|    | Other naturally regenerated forest | 12.15                      | 12.15 | 12.15 | 12.15 | 12.15 |
|    | ... of which of introduced species | 0                          | 0     | 0     | 0     | 0     |
|    | ... of which naturalized           | N/A                        | N/A   | N/A   | N/A   | N/A   |
|  | Planted forest                     | 0                          | 0     | 0     | 0     | 0     |
|  | ... of which of introduced species | 0                          | 0     | 0     | 0     | 0     |
| TOTAL   |                                    | 12.15                      | 12.15 | 12.15 | 12.15 | 12.15 |

Table 2b

| Primary forest converted to (000 ha) |         |            |                            |         |            |                            |         |            |
|--------------------------------------|---------|------------|----------------------------|---------|------------|----------------------------|---------|------------|
| 1990-2000                            |         |            | 2000-2010                  |         |            | 2010-2015                  |         |            |
| Other natural regeneration           | Planted | Other land | Other natural regeneration | Planted | Other land | Other natural regeneration | Planted | Other land |
| N/A                                  | N/A     | N/A        | N/A                        | N/A     | N/A        | N/A                        | N/A     | N/A        |

Table 2c

| Categories                 | Area (000 hectares) |       |       |       |       |
|----------------------------|---------------------|-------|-------|-------|-------|
|                            | 1990                | 2000  | 2005  | 2010  | 2015  |
| Mangroves (forest and OWL) | 0.258               | 0.258 | 0.258 | 0.258 | 0.258 |
| ... of which planted       | N/A                 | N/A   | N/A   | N/A   | N/A   |

Tiers

| Category                           | Tier for status | Tier for reported trend |
|------------------------------------|-----------------|-------------------------|
| Primary forest                     | Tier 1          | Tier 1                  |
| Other naturally regenerated forest | Tier 1          | Tier 1                  |
| Planted forest                     | Tier 1          | Tier 1                  |
| Mangroves                          | Tier 1          | Tier 1                  |

### Tier Criteria

| Category   | Tier for status  | Tier for reported trend  |
|--|--|--|
| Primary forest/Other naturally regenerated forest/Planted forest | <p><b>Tier 3</b> : Data sources: Recent (less than 10 years) National Forest Inventory or remote sensing with ground truthing or data provided by official agencies or programme for repeated compatible NFIs</p> <p><b>Tier 2</b> : Data sources: Full cover mapping/ remote sensing or old NFI (more than 10 years)</p> <p><b>Tier 1</b> : Other</p> | <p><b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status)</p> <p><b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status)</p> <p><b>Tier 1</b> : Other</p> |

### 2.5 Comments

| Category                            | Comments related to data definitions etc   | Comments on reported trend   |
|-------------------------------------|--|--|
| Primary forest                      | N/A  | N/A  |
| Other naturally regenerating forest | Not yet assessed Comprises of shrubs normally assist in providing timber to the community therefore actually disturbed by human.   | N/A  |
| Planted forest                      | Introduced forest including bamboo and other nitrogen fixing trees which are not common in the country found on a small scale of land. Actual planting on designated planting sites on important atoll forestry have been carried out mainly on South Tarawa, as the capital island. From MELAD ECD, actual planting on designated planting sites on important atoll forestry resources have been carried out mainly on South Tarawa, as the capital island. | The National Adaptation Programme for Action has a component of mangrove plantation in the coastal zone management resilience, enhancement and adaptation. <a href="http://unfccc.int/resource/docs/napa/kir01.pdf">http://unfccc.int/resource/docs/napa/kir01.pdf</a> |
| Mangroves                           | N/A  | N/A  |

#### Other general comments to the table

Natural forest in Kiribati involved abandoned areas where wild pandanus, bushes, and shrubs grow naturally. Unfortunately data are not available as plant/tree inventory haven't carried out ever since therefore inventory is one of the country needs which require technical and financial support.

### 3. What are the stocks and growth rates of the forests and how have they changed?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

#### 3.1 Categories and definitions

| Category                       | Definition   |
|--------------------------------|--|
| Growing stock                  | Volume over bark of all living trees with a minimum diameter of 10 cm at breast height (or above buttress if these are higher). Includes the stem from ground level up to a top diameter of 0 cm, excluding branches.  |
| Net Annual Increment (NAI)     | Average annual volume of gross increment over the given reference period less that of natural losses on all trees, measured to minimum diameters as defined for "Growing stock".   |
| Above-ground biomass           | All living biomass above the soil including stem stump branches bark seeds and foliage.  |
| Below-ground biomass           | All biomass of live roots. Fine roots of less than 2 mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.  |
| Dead wood                      | All non-living woody biomass not contained in the litter either standing lying on the ground or in the soil. Dead wood includes wood lying on the surface dead roots and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country.               |
| Carbon in above-ground biomass | Carbon in all living biomass above the soil including stem stump branches bark seeds and foliage.  |
| Carbon in below-ground biomass | Carbon in all biomass of live roots. Fine roots of less than 2 mm diameter are excluded because these often cannot be distinguished empirically from soil organic matter or litter.  |
| Carbon in dead wood            | Carbon in all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots and stumps larger than or equal to 10 cm in diameter or any other diameter used by the country. |
| Carbon in litter               | Carbon in all non-living biomass with a diameter less than the minimum diameter for dead wood (e.g. 10 cm ) lying dead in various states of decomposition above the mineral or organic soil.   |
| Soil carbon                    | Organic carbon in mineral and organic soils (including peat) to a soil depth of 30 cm.   |

#### 3.2 National data

##### 3.2.1 Data sources

|   | References to sources of information | Variables     | Years     | Additional comments |
|---|--------------------------------------|---------------|-----------|---------------------|
| 1 | Rhett Butler                         | Growing stock | 1994-2006 | Species             |
| 2 | World Resources Institute            | Growing stock | 2006      | Species             |
| 3 | N/A                                  | N/A           | N/A       | N/A                 |
| 4 | N/A                                  | N/A           | N/A       | N/A                 |

## 3.2.2 Classification and definitions

| National class | Definition  |
|----------------|---|
| Growing stock  | All living tree/scrub components on forest areas and all living tree/scrub components on Other wooded land areas, suppose the average canopy height is 7m to all tree/scrub components. |
| N/A            | N/A   |
| N/A            | N/A   |
| N/A            | N/A   |

## 3.2.3 Original data

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| <p><b>Growing stock</b></p> <p>See table 3b, list of more important species.</p> |
|--|

## 3.3 Analysis and processing of national data

## 3.3.1 Adjustment

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## 3.3.2 Estimation and forecasting

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## 3.3.3 Reclassification

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## 3.4 Data

Table 3a

| Category                    | Growing stock volume (million m <sup>3</sup> over bark) |      |      |      |      |                   |      |      |      |      |
|-----------------------------|---|------|------|------|------|-------------------|------|------|------|------|
|                             | Forest  |      |      |      |      | Other wooded land |      |      |      |      |
|                             | 1990  | 2000 | 2005 | 2010 | 2015 | 1990              | 2000 | 2005 | 2010 | 2015 |
| CFRQ<br>Total growing stock | N/A   | N/A  | N/A  | N/A  | N/A  | 0                 | 0    | 0    | 0    | 0    |



|   |                          |     |     |     |     |     |   |   |   |   |   |
|---|--------------------------|-----|-----|-----|-----|-----|---|---|---|---|---|
|  | ... of which coniferous  | N/A | N/A | N/A | N/A | N/A | 0 | 0 | 0 | 0 | 0 |
|  | ... of which broadleaved | N/A | N/A | N/A | N/A | N/A | 0 | 0 | 0 | 0 | 0 |

Table 3b

| Category/Species name |                            |                                  | Growing stock in forest (million cubic meters) |      |      |      |
|-----------------------|----------------------------|----------------------------------|--|------|------|------|
| Rank                  | Scientific name            | Common name                      | 1990   | 2000 | 2005 | 2010 |
| 1 st                  | Cocos nucifera             | Coconut                          | N/A  | N/A  | N/A  | N/A  |
| 2 nd                  | Scaevola sericea Vahl      | Salt bush                        | N/A  | N/A  | N/A  | N/A  |
| 3 rd                  | Guettarda spp              | Guettarda;wut                    | N/A  | N/A  | N/A  | N/A  |
| 4 th                  | Tournefortia spp           | Tree heliotrope                  | N/A  | N/A  | N/A  | N/A  |
| 5 th                  | Mirinda citrifolia         | Beach mulberry                   | N/A  | N/A  | N/A  | N/A  |
| 6 th                  | Pemphis acidula forst. (I) | Iron wood, pemphis               | N/A  | N/A  | N/A  | N/A  |
| 7 th                  | Rhizophora spp             | Mangroves                        | N/A  | N/A  | N/A  | N/A  |
| 8 th                  | Pandanus tectorius         | Pandanus tree                    | N/A  | N/A  | N/A  | N/A  |
| 9 th                  | Cyrtosperma chamissions    | Giant Swamp Taro                 | N/A  | N/A  | N/A  | N/A  |
| 10 th                 | Casuarina eqiseifola       | Ironwood, she-oak, beefwood tree | N/A  | N/A  | N/A  | N/A  |
| Remaining             |                            |                                  | N/A  | N/A  | N/A  | N/A  |
| TOTAL                 |                            |                                  | .00  | .00  | .00  | .00  |

**THE PRE-FILLED VALUES FOR GROWING STOCK REFER TO THE FOLLOWING THRESHOLD VALUES (SEE TABLE BELOW)**

| Item  | Value | Complementary information |
|---|-------|---------------------------|
| Minimum diameter (cm) at breast height of trees included in growing stock (X)     | N/A   | N/A                       |
| Minimum diameter (cm) at the top end of stem for calculation of growing stock (Y) | N/A   | N/A                       |
| Minimum diameter (cm) of branches included in growing stock (W)                   | N/A   | N/A                       |

|  |     |     |
|--|-----|-----|
| Volume refers to above ground (AG) or above stump (AS) | N/A | N/A |
|--|-----|-----|

**PLEASE NOTE THAT THE DEFINITION OF GROWING STOCK HAS CHANGED AND SHOULD BE REPORTED AS GROWING STOCK DBH 10 CM INCLUDING THE STEM FROM GROUND LEVEL UP TO A DIAMETER OF 0 CM, EXCLUDING BRANCHES.**

Table 3c




| Category  |                          | Net annual increment (m <sup>3</sup> per hectare and year) |      |      |      |      |
|---|--------------------------|--|------|------|------|------|
|   |                          | Forest   |      |      |      |      |
|   |                          | 1990   | 2000 | 2005 | 2010 | 2015 |
|  | Net annual increment     | N/A  | N/A  | N/A  | N/A  | N/A  |
|  | ... of which coniferous  | N/A  | N/A  | N/A  | N/A  | N/A  |
|  | ... of which broadleaved | N/A  | N/A  | N/A  | N/A  | N/A  |

Table 3d











| Category  |                      | Biomass (million metric tonnes oven-dry weight) |      |      |      |      |                   |      |      |      |      |
|---|----------------------|---|------|------|------|------|-------------------|------|------|------|------|
|   |                      | Forest  |      |      |      |      | Other wooded land |      |      |      |      |
|   |                      | 1990  | 2000 | 2005 | 2010 | 2015 | 1990              | 2000 | 2005 | 2010 | 2015 |
|  | Above ground biomass | N/A   | N/A  | N/A  | N/A  | N/A  | 0                 | 0    | 0    | 0    | 0    |
|  | Below ground biomass | N/A   | N/A  | N/A  | N/A  | N/A  | 0                 | 0    | 0    | 0    | 0    |
|  | Dead wood            | N/A   | N/A  | N/A  | N/A  | N/A  | 0                 | 0    | 0    | 0    | 0    |
| TOTAL   |                      | .00   | .00  | .00  | .00  | .00  | .00               | .00  | .00  | .00  | .00  |

Table 3e

| Category  |                                | Carbon (Million metric tonnes) |      |      |      |      |                   |      |      |      |      |
|---|--------------------------------|--------------------------------|------|------|------|------|-------------------|------|------|------|------|
|   |                                | Forest                         |      |      |      |      | Other wooded land |      |      |      |      |
|   |                                | 1990                           | 2000 | 2005 | 2010 | 2015 | 1990              | 2000 | 2005 | 2010 | 2015 |
|  | Carbon in above ground biomass | N/A                            | N/A  | N/A  | N/A  | N/A  | 0                 | 0    | 0    | 0    | 0    |

|   |                                      |     |     |     |     |     |     |     |     |     |     |
|---|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | Carbon in below ground biomass       | N/A | N/A | N/A | N/A | N/A | 0   | 0   | 0   | 0   | 0   |
|  | <i>Subtotal Living biomass</i>       | N/A | N/A | N/A | N/A | N/A | 0   | 0   | 0   | 0   | 0   |
|  | Carbon in dead wood                  | N/A | N/A | N/A | N/A | N/A | 0   | 0   | 0   | 0   | 0   |
|  | Carbon in litter                     | N/A | N/A | N/A | N/A | N/A | 0   | 0   | 0   | 0   | N/A |
|  | <i>Subtotal Dead wood and litter</i> | N/A | N/A | N/A | N/A | N/A | 0   | 0   | 0   | 0   | 0   |
|  | Soil carbon                          | N/A | N/A | N/A | N/A | N/A | 0   | 0   | 0   | 0   | 0   |
| TOTAL   |                                      | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |

## Tiers

| Variable/category              | Tier for status | Tier for trend |
|--------------------------------|-----------------|----------------|
| Total growing stock            | Tier 1          | Tier 1         |
| Net annual increment           | Tier 1          | Tier 1         |
| Above ground biomass           | Tier 1          | Tier 1         |
| Below ground biomass           | Tier 1          | Tier 1         |
| Dead wood                      | Tier 1          | Tier 1         |
| Carbon in above-ground biomass | Tier 1          | Tier 1         |
| Carbon in below ground biomass | Tier 1          | Tier 1         |
| Carbon in dead wood and litter | Tier 1          | Tier 1         |
| Soil carbon                    | Tier 1          | Tier 1         |

## Tier criteria

| Category | Tier for status | Tier for reported trend |
|----------|-----------------|-------------------------|
|----------|-----------------|-------------------------|



|   |   |   |
|---|---|---|
| Total growing stock   | Tier 3: Data sources Recent 10 years National Forest Inventory or remote sensing with ground truthing or programme for repeated compatible NFI 10 years Domestic volume functions Tier 2: Data sources/registers and statistics modelling or old NFI 10 years or partial field inventory Tier 1: Other data sources   | Tier 3: Estimate based on repeated compatible tiers 3 (tier for status) Domestic growth functions Tier 2: Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 tier for status Tier 1: Other |
| Net annual increment  | Tier 3: Scientifically tested national volume and growth functions Tier 2: Selection of volume and growth functions as relevant as possible Tier 1: Other   | Tier 3: Confirmation/adjustment of functions used through scientific work Tier 2: Review work done to seek alternative functions Tier: 1 Other  |
| Biomass   | Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied or other domestic or otherwise nationally relevant biomass studies Tier 2: Application of country specific national or sub-national biomass conversion factors from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |
| <ul style="list-style-type: none"> <li>• Carbon in above ground biomass</li> <li>• Carbon in below ground biomass</li> <li>• Carbon in dead wood and litter</li> <li>• Soil carbon</li> </ul> | Tier 3: Country-specific national or sub-national biomass conversion expansion factors applied Tier 2: Application of country specific national or sub-national biomass conversion factors form from other country with similar climatic conditions and forest types Tier 1: International/regional default biomass expansion factors applied   | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |

### 3.5 Comments on growing stock biomass and carbon

| Category                                | Comments related to data definitions etc | Comments on the reported trend |
|---|--|--------------------------------|
| Total growing stock                     | N/A                                      | N/A                            |
| Growing stock of broadleaved coniferous | N/A                                      | N/A                            |
| Growing stock composition               | N/A                                      | N/A                            |
| Net annual increment                    | N/A                                      | N/A                            |
| Above-ground biomass                    | N/A                                      | N/A                            |
| Below-ground biomass                    | N/A                                      | N/A                            |
| Dead wood                               | N/A                                      | N/A                            |
| Carbon in above-ground biomass          | N/A                                      | N/A                            |
| Carbon in below-ground biomass          | N/A                                      | N/A                            |

|                     |     |     |
|---------------------|-----|-----|
| Carbon in dead wood | N/A | N/A |
| Carbon in litter    | N/A | N/A |
| Soil carbon         | N/A | N/A |

|  |  |  |
|--|--|--|
| <b>Other general comments to the table</b> |  |  |
| N/A  |  |  |

## 4. What is the status of forest production and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 4.1 Categories and definitions

| Term                           | Definition  |
|--------------------------------|---|
| Primary designated function    | The primary function or management objective assigned to a management unit either by legal prescription documented decision of the landowner/manager or evidence provided by documented studies of forest management practices and customary use. |
| Non wood forest product (NWFP) | Goods derived from forests that are tangible and physical objects of biological origin other than wood.   |
| Commercial value of NWFP       | For the purpose of this table, value is defined as the commercial market value at the forest gate.  |
| Category                       | Definition  |
| Production forest              | Forest area designated primarily for production of wood, fibre, bio-energy and/or non-wood forest products.   |
| Multiple use forest            | Forest area designated for more than one purpose and where none of these alone is considered as the predominant designated function.  |
| Total wood removals            | The total of industrial round wood removals and woodfuel removals.  |
| ...of which woodfuel           | The wood removed for energy production purposes, regardless whether for industrial, commercial or domestic use.   |

### 4.2 National data

#### 4.2.1 Data sources

|  | References to sources of information | Variables | Years | Additional comments |
|--|--------------------------------------|-----------|-------|---------------------|
|  |                                      |           |       |                     |

|   |  |   |      |   |
|---|--|---|------|---|
| 1 | Phoenix Islands Protected Area (PIPA) Information Fact Sheet   | The designation of the Phoenix Islands Protected Area (PIPA) also includes terrestrial biodiversity conservation, which includes existing flora and fauna available in these islands. The designation of the PIPA came about after a series of scientific expeditions by a recognized research organization (New England Aquarium), who has been instrumental in advising the Government of Kiribati that these islands and surrounding marine environment have high biodiversity values that need to be protected. The PIPA is now the biggest protected area designated in the world. | 2006 | N/A   |
| 2 | PIPA Regulations 2008  | N/A   | 2008 | The PIPA Regulations 2008 is a regulation under the Environment Act 1999 (as amended 2007)  |
| 3 | Wildlife Conservation Ordinance  | 1977  | N/A  | The Wildlife Conservation Ordinance will be revised some time in 2009   |
| 4 | Government of Kiribati country report (1st) to the Conference of the Parties to the Convention on Biological Diversity (CBD) & Government of Kiribati National Biodiversity Strategies and Actions Plan (NBSAP – Kiribati)   | 2005  | N/A  | The country report and the NBSAP - Kiribati have been cabinet approved and are now ready for submission to the Secretariat of the Convention on Biological Diversity. Both the report and the NBSAP-Kiribati reflect baseline data on the status of protected areas and the conservation of biological diversity in the context of Kiribati as an atoll nation. |
| 5 | Maps – Lands Management Division (LMD) of Ministry of Environment, Lands & Agricultural Development (MELAD) Government of Kiribati country report (1st) to the Conference of the Parties to the Convention on Biological Diversity (CBD) & Government of Kiribati National Biodiversity Strategies and Actions Plan (NBSAP – Kiribati) | N/A   | 2005 | Be available later  |

|   |   |     |      |  |
|---|---|-----|------|--|
| 6 | Metz, D.W. 1996. The Mangroves of Kiribati: An Inventory, Feasibility and Management Study. Vol 1. Prepared for Agriculture Division, MNRD, Republic of Kiribati by USDA Forest Service in collaboration with South Pacific Forestry Development Programme (FAO/UNDP/RAS/92/361) Suva, Fiji. Unpublished. | N/A | 1995 | This working paper is one of a series of publications prepared during the course (1992 – 96) of the UNDP/FAO South Pacific Forestry Development Programme. This is also one of the first comprehensive study on mangroves undertaken in Kiribati. This figure may be slightly on the lower side, since the extent of mangroves found in many small islands is not available. |
|---|---|-----|------|--|

#### 4.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

#### 4.2.3 Original data

|  |
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### 4.3 Analysis and processing of national data

#### 4.3.1 Adjustment

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#### 4.3.2 Estimation and forecasting

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#### 4.3.3 Reclassification

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### 4.4 Data

Table 4a

| Categories | Forest area (000 hectares) |      |      |      |      |
|------------|----------------------------|------|------|------|------|
|            | 1990                       | 2000 | 2005 | 2010 | 2015 |
|            |                            |      |      |      |      |



|   |                     |   |   |   |   |   |
|---|---------------------|---|---|---|---|---|
|  | Production forest   | 0 | 0 | 0 | 0 | 0 |
|  | Multiple use forest | 0 | 0 | 0 | 0 | 0 |

Table 4b

| Rank  | Name of product | Key species | Commercial value of NWFP removals 2010 (value 1000 local currency) | NWFP category |
|-------|-----------------|-------------|--|---------------|
| 1 st  | N/A             | N/A         | N/A  | N/A           |
| 2 nd  | N/A             | N/A         | N/A  | N/A           |
| 3 rd  | N/A             | N/A         | N/A  | N/A           |
| 4 th  | N/A             | N/A         | N/A  | N/A           |
| 5 th  | N/A             | N/A         | N/A  | N/A           |
| 6 th  | N/A             | N/A         | N/A  | N/A           |
| 7 th  | N/A             | N/A         | N/A  | N/A           |
| 8 th  | N/A             | N/A         | N/A  | N/A           |
| 9 th  | N/A             | N/A         | N/A  | N/A           |
| 10 th | N/A             | N/A         | N/A  | N/A           |
| TOTAL |                 |             | .00  |               |

|                        |     |
|------------------------|-----|
| 2010                   |     |
| Name of local currency | N/A |

| Category   |
|--|
| <b>Plant products / raw material</b>                 |
| 1 Food   |
| 2 Fodder   |
| 3 Raw material for medicine and aromatic products    |
| 4 Raw material for colorants and dyes                |
| 5 Raw material for utensils handicrafts construction |
| 6 Ornamental plants                                  |

|                                       |
|---------------------------------------|
| 7 Exudates                            |
| 8 Other plant products                |
| <b>Animal products / raw material</b> |
| 9 Living animals                      |
| 10 Hides skins and trophies           |
| 11 Wild honey and beeswax             |
| 12 Wild meat                          |
| 13 Raw material for medicine          |
| 14 Raw material for colorants         |
| 15 Other edible animal products       |
| 16 Other non-edible animal products   |

Table 4c Pre-filled data from FAOSTAT

| Year | FRA 2015 category (1000 m <sup>3</sup> u.b.) |                      |
|------|--|----------------------|
|      | Total wood removals                          | ...of which woodfuel |
| 1990 | 2.03   | 2.03                 |
| 1991 | 2.06   | 2.06                 |
| 1992 | 2.09   | 2.09                 |
| 1993 | 2.12   | 2.09                 |
| 1994 | 2.06   | 2.06                 |
| 1995 | 2.08   | 2.08                 |
| 1996 | 2.14   | 2.14                 |
| 1997 | 2.16   | 2.16                 |
| 1998 | 2.2  | 2.2                  |
| 1999 | 2.24   | 2.24                 |
| 2000 | 2.4  | 2.4                  |
| 2001 | 2.45   | 2.45                 |
| 2002 | 2.5  | 2.5                  |

|      |      |      |
|------|------|------|
| 2003 | 2.55 | 2.55 |
| 2004 | 2.6  | 2.6  |
| 2005 | 2.65 | 2.65 |
| 2006 | 2.7  | 2.7  |
| 2007 | 2.76 | 2.76 |
| 2008 | 2.82 | 2.82 |
| 2009 | 2.88 | 2.88 |
| 2010 | 2.94 | 2.94 |
| 2011 | 2.99 | 2.99 |

## Tiers

| Category            | Tier for status | Tier for reported trend |
|---------------------|-----------------|-------------------------|
| Production forest   | Tier 1          | Tier 1                  |
| Multiple use forest | Tier 1          | Tier 1                  |

## Tier Criteria

| Category                              | Tier for status  | Tier for reported trend   |
|---------------------------------------|--|---|
| Production forest Multiple use forest | Tier 3: Updated including field verifications national forest maps including functions Tier 2: Forest maps older than 6 years including forest functions Tier 1: Other | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |

## 4.5 Comments

| Category                 | Comments related to data definitions etc   | Comments on the reported trend          |
|--------------------------|--|---|
| Production forest        | N/A  | N/A                                     |
| Multiple use forest      | Phoenix Islands Protected Area (PIPA) Regulations 2008 designate the Phoenix Islands Group as a Protected Area for multiple uses under the IUCN Protected Areas strategy 1b - wilderness area. | PIPA management plan is still in draft. |
| Total wood removals      | N/A  | N/A                                     |
| Commercial value of NWFP | N/A  | N/A                                     |

**Other general comments to the table**



The Republic of Kiribati has taken the remarkable step of declaring the Phoenix Islands archipelago and surrounding waters, an area of 410,500 sq. km., as the Phoenix Islands Protected Area (PIPA). It is the largest marine protected area in the world today. The Phoenix Islands group is one of the Earth's last intact oceanic coral archipelago ecosystems and represents a marine wilderness area that has had very limited human exploitation due to their extremely remote location.

## 5. How much forest area is managed for protection of soil and water and ecosystem services?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 5.1 Categories and definitions

| Category   | Definition   |
|--|--|
| Protection of soil and water   | Forest area designated or managed for protection of soil and water   |
| ...of which production of clean water ( <i>sub-category</i> )                        | Forest area primarily designated or managed for water production, where most human uses are excluded or heavily modified to protect water quality.                                 |
| ...of which coastal stabilization ( <i>sub-category</i> )                            | Forest area primarily designated or managed for coastal stabilization.   |
| ...of which desertification control ( <i>sub-category</i> )                          | Forest area primarily designated or managed for desertification control.   |
| ...of which avalanche control ( <i>sub-category</i> )                                | Forest area primarily designated or managed to prevent the development or impact of avalanches on human life assets or infrastructure.   |
| ...of which erosion, flood protection or reducing flood risk ( <i>sub-category</i> ) | Forest area primarily designated or managed for protecting communities or assets from the impacts of erosion riparian floods and landslides or for providing flood plain services. |
| ...of which other ( <i>sub-category</i> )  | Forest area primarily designated or managed for other protective functions.  |
| Ecosystem services, cultural or spiritual values                                     | Forest area primarily designated or managed for selected ecosystem services or cultural or spiritual values.   |
| ...of which public recreation ( <i>sub-category</i> )                                | Forest area designated or managed for public recreation.   |
| ...of which carbon storage or sequestration ( <i>sub-category</i> )                  | Forest area designated or managed for carbon storage or sequestration.   |
| ...of which spiritual or cultural services ( <i>sub-category</i> )                   | Forest area designated or managed for spiritual or cultural services.  |
| ...of which other ( <i>sub-category</i> )  | Forest area designated or managed for other ecosystem services.  |

### 5.2 National data

#### 5.2.1 Data sources

|   | References to sources of information | Variables | Years | Additional comments |
|---|--------------------------------------|-----------|-------|---------------------|
| 1 | N/A                                  | N/A       | N/A   | N/A                 |
| 2 | N/A                                  | N/A       | N/A   | N/A                 |

|   |     |     |     |     |
|---|-----|-----|-----|-----|
| 3 | N/A | N/A | N/A | N/A |
| 4 | N/A | N/A | N/A | N/A |

### 5.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

### 5.2.3 Original data

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## 5.3 Analysis and processing of national data

### 5.3.1 Adjustment

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### 5.3.2 Estimation and forecasting




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### 5.3.3 Reclassification

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## 5.4 Data

Table 5a

| Categories  |  | Forest area (1000 hectares) |      |      |      |      |
|---|--|-----------------------------|------|------|------|------|
|   |  | 1990                        | 2000 | 2005 | 2010 | 2015 |
|  | Protection of soil and water           | N/A                         | N/A  | N/A  | N/A  | N/A  |
|  | ... of which production of clean water | N/A                         | N/A  | N/A  | N/A  | N/A  |
|  | ... of which coastal stabilization     | N/A                         | N/A  | N/A  | N/A  | N/A  |

|   |   |     |     |     |     |     |
|---|---|-----|-----|-----|-----|-----|
|  | ... of which desertification control                            | N/A | N/A | N/A | N/A | N/A |
|  | ... of which avalanche control                                  | N/A | N/A | N/A | N/A | N/A |
|  | ... of which erosion, flood protection or reducing flood risk   | N/A | N/A | N/A | N/A | N/A |
|  | ... of which other (please specify in comments below the table) | N/A | N/A | N/A | N/A | N/A |

|              |
|--------------|
| <b>Other</b> |
|--------------|

|     |
|-----|
| N/A |
|-----|

Table 5b

| Categories   | Forest area (1000 hectares) |      |      |      |      |
|--|-----------------------------|------|------|------|------|
|  | 1990                        | 2000 | 2005 | 2010 | 2015 |
| Ecosystem services, cultural or spiritual values               | N/A                         | N/A  | N/A  | N/A  | N/A  |
| ...of which public recreation                                  | N/A                         | N/A  | N/A  | N/A  | N/A  |
| ...of which carbon storage or sequestration                    | N/A                         | N/A  | N/A  | N/A  | N/A  |
| ...of which spiritual or cultural services                     | N/A                         | N/A  | N/A  | N/A  | N/A  |
| ...of which other (please specify in comments below the table) | N/A                         | N/A  | N/A  | N/A  | N/A  |

## Tiers

| Category   | Tier for reported trend | Tier for status |
|--|-------------------------|-----------------|
| Protection of soil and water                     | N/A                     | N/A             |
| Ecosystem services, cultural or spiritual values | N/A                     | N/A             |

## Tier criteria

| Category | Tier for status | Tier for reported trend |
|----------|-----------------|-------------------------|
|----------|-----------------|-------------------------|

|  |   |   |
|--|---|---|
| Protection of soil and water   | Tier 3: High reliability data derived either from high intensity sample survey or data obtained from national or state agencies responsible for regulations or legislation relating to soil and water protection. Tier 2: Approaches based on low intensity or incomplete sample-based surveys or studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates. Tier 1: Other | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |
| <ul style="list-style-type: none"> <li>• Cultural or spiritual values</li> <li>• Public recreation</li> <li>• Spiritual or cultural services</li> <li>• Other</li> </ul> | Tier 3: High reliability data derived either from high intensity sample survey or data obtained from national or state agencies responsible for regulations. Tier 2: Approaches based on low intensity or incomplete sample-based surveys or studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates. Tier 1: Other  | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |

## 5.5 Comments

| Category   | Comments related to data definitions etc | Comments on the reported trend |
|--|--|--------------------------------|
| Protection of soil and water                     | N/A                                      | N/A                            |
| Production of clean water                        | N/A                                      | N/A                            |
| Coastal stabilization                            | N/A                                      | N/A                            |
| Desertification control                          | N/A                                      | N/A                            |
| Avalanche control                                | N/A                                      | N/A                            |
| Erosion, flood protection or reducing flood risk | N/A                                      | N/A                            |
| Other protective functions                       | N/A                                      | N/A                            |
| Ecosystem services, cultural or spiritual values | N/A                                      | N/A                            |
| Public recreation                                | N/A                                      | N/A                            |
| Carbon storage or sequestration                  | N/A                                      | N/A                            |
| Spiritual or cultural services                   | N/A                                      | N/A                            |
| Other ecosystem services                         | N/A                                      | N/A                            |

**Other general comments to the table**

|     |
|-----|
| N/A |
|-----|

## 6. How much forest area is protected and designated for the conservation of biodiversity and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 6.1 Categories and definitions

| Category                           | Definition   |
|------------------------------------|--|
| Conservation of biodiversity       | Forest area designated primarily for conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas. |
| Forest area within protected areas | Forest area within formally established protected areas independently of the purpose for which the protected areas were established.   |

### 6.2 National data

#### 6.2.1 Data sources

|   | References to sources of information                         | Variables | Years | Additional comments   |
|---|--|-----------|-------|---|
| 1 | Phoenix Islands Protected Area (PIPA) Information Fact Sheet | N/A       | 2006  | The designation of the Phoenix Islands Protected Area (PIPA) also includes terrestrial biodiversity conservation, which includes existing flora and fauna available in these islands. The designation of the PIPA came about after a series of scientific expeditions by a recognized research organization (New England Aquarium), who has been instrumental in advising the Government of Kiribati that these islands and surrounding marine environment have high biodiversity values that need to be protected. The PIPA is now the biggest protected area designated in the world. |
| 2 | PIPA Regulations 2008  | N/A       | 2008  | The PIPA Regulations 2008 is a regulation under the Environment Act 1999 (as amended 2007)  |
| 3 | Wildlife Conservation Ordinance                              | N/A       | 1977  | The Wildlife Conservation Ordinance will be revised some time in 2009   |

|   |   |     |      |  |
|---|---|-----|------|--|
| 4 | Government of Kiribati country report (1st) to the Conference of the Parties to the Convention on Biological Diversity (CBD) & Government of Kiribati National Biodiversity Strategies and Actions Plan (NBSAP – Kiribati)  | N/A | 2005 | The country report and the NBSAP - Kiribati have been cabinet approved and are now ready for submission to the Secretariat of the Convention on Biological Diversity. Both the report and the NBSAP-Kiribati reflect baseline data on the status of protected areas and the conservation of biological diversity in the context of Kiribati as an atoll nation.              |
| 5 | Maps – Lands Management Division (LMD) of Ministry of Environment, Lands & Agricultural Development (MELAD)   | N/A | N/A  | Be available later   |
| 6 | Metz, D.W. 1996. The Mangroves of Kiribati: An Inventory, Feasibility and Management Study. Vol 1. Prepared for Agriculture Division, MNRD, Republic of Kiribati by USDA Forest Service in collaboration with South Pacific Forestry Development Programme (FAO/UNDP/RAS/92/361) Suva, Fiji. Unpublished. | N/A | 1995 | This working paper is one of a series of publications prepared during the course (1992 – 96) of the UNDP/FAO South Pacific Forestry Development Programme. This is also one of the first comprehensive study on mangroves undertaken in Kiribati. This figure may be slightly on the lower side, since the extent of mangroves found in many small islands is not available. |

### 6.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

### 6.2.3 Original data

The designation of the Phoenix Islands Protected Area (PIPA) also includes terrestrial biodiversity conservation, which includes existing flora and fauna available in these islands.

There is not information available to determine the forest area existing in the littoral of this protected area.



## 6.3 Analysis and processing of national data



### 6.3.1 Adjustment

### 6.3.2 Estimation and forecasting

### 6.3.3 Reclassification

## 6.4 Data

Table 6

| Categories  |                                    | Forest area (000 hectares) |       |       |       |       |
|---|------------------------------------|----------------------------|-------|-------|-------|-------|
|   |                                    | 1990                       | 2000  | 2005  | 2010  | 2015  |
|    | Conservation of biodiversity       | 0.258                      | 0.258 | 0.258 | 0.258 | 0.258 |
|  | Forest area within protected areas | N/A                        | N/A   | N/A   | N/A   | N/A   |

### Tiers

| Category                           | Tier for status | Tier for reported trend |
|------------------------------------|-----------------|-------------------------|
| Conservation of biodiversity       | Tier 1          | Tier 1                  |
| Forest area within protected areas | Tier 1          | Tier 1                  |

### Tier criteria

| Category   | Tier for status   | Tier for reported trend   |
|--|---|---|
| <ul style="list-style-type: none"> <li>Conservation of biodiversity</li> <li>Forests within protected areas</li> </ul> | Tier 3: Data obtained from national or state agencies responsible for conservation and protected area or legislation relating to area protection. Tier 2: Studies that provide data for specific areas that is extrapolated through statistical analysis to national level estimates Tier 1 Other | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |

## 6.5 Comments

| Category | Comments related to data definitions etc | Comments on the reported trend |
|----------|--|--------------------------------|
|----------|--|--------------------------------|

|                                    |   |  |
|------------------------------------|---|--|
| Conservation of biodiversity       | Not yet assessed. Baseline information and maps have been collected mainly. These baseline information and data need to be verified. Verification pending, subject to available funds and appropriate TAs to be identified, who would work closely with local counterparts within ECD MELAD. However, data on total land areas and bush areas are available with MELAD LMD. All mangrove area has been included in this category. | SOE report is still in draft, information and data on conservation of biodiversity is also included. |
| Forest area within protected areas | Forest area within designated conservation closed areas (on land and on conservation off-islets) and wildlife sanctuaries under the Wildlife Conservation ordinance 1977 are yet to be assessed.  | N/A  |

**Other general comments to the table**

The Republic of Kiribati has taken the remarkable step of declaring the Phoenix Islands archipelago and surrounding waters, an area of 410,500 sq. km., as the Phoenix Islands Protected Area (PIPA). It is the largest marine protected area in the world today. The Phoenix Islands group is one of the Earth's last intact oceanic coral archipelago ecosystems and represents a marine wilderness area that has had very limited human exploitation due to their extremely remote location.

## 7. What is the area of forest affected by woody invasive species?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 7.1 Categories and definitions

| Category         | Definition   |
|------------------|--|
| Invasive species | Species that are non-native to a particular ecosystem and whose introduction and spread cause, or are likely to cause, socio-cultural, economic or environmental harm or harm to human health. |

### 7.2 National data

#### 7.2.1 Data sources

|   | References to sources of information   | Variables   | Years | Additional comments |
|---|--|---|-------|---------------------|
| 1 | Agricultural Report on Kiribati invasive species<br>Kiribati National Report to CPBD - CBD was drafted by Temakei Tebano with the assistance of Ribanataake Awira and Kaitu Koina, in collaboration with various government ministries and departments, NGOs and individuals. 1999                     | List of species presented in the section of comments. | N/A   | N/A                 |
| 2 | Space, J.C. and Imada, C.T. 2004. Report to the Republic of Kiribati on Invasive Plant Species on the Islands of Tarawa, Abemama, Butaritari and Maiana<br><a href="http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/11.pdf">http://www.sprep.org/att/IRC/eCOPIES/Countries/Kiribati/11.pdf</a> | List of invasive species (flora and fauna)            | N/A   | N/A                 |
| 3 | N/A  | N/A   | N/A   | N/A                 |
| 4 | N/A  | N/A   | N/A   | N/A                 |

#### 7.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

|     |     |
|-----|-----|
| N/A | N/A |
|-----|-----|

7.2.3 Original data

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|  |
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**7.3 Analysis and processing of national data**

7.3.1 Adjustment

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7.3.2 Estimation and forecasting

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7.3.3 Reclassification

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**7.4 Data**

Table 7

| Scientific name of woody invasive species | Forest area affected (000 ha) |      |
|---|-------------------------------|------|
|   | 2005                          | 2010 |
| Premna serratifolia                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| N/A                                       | N/A                           | N/A  |
| Total                                     | N/A                           | N/A  |

Tiers

| Category         | Tier for status | Tier for reported trend |
|------------------|-----------------|-------------------------|
| Invasive species | Tier 1          | Tier 1                  |

## Tier Criteria

| Category         | Tier for status  | Tier for reported trend   |
|------------------|--|---|
| Invasive species | Tier 3: Systematic assessment in forest inventory or other survey (e.g. by conservation department) within the last 5 years) Tier 2: Systematic assessment in forest inventory or other survey (e.g. by conservation department conducted more than 5 years ago) Tier 1: Other | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |

## 7.5 Comments

| Category         | Comments related to data definitions etc | Comments on the reported trend |
|------------------|--|--------------------------------|
| Invasive species | All above                                | N/A                            |

| Other general comments to the table |
|-------------------------------------|
| N/A                                 |

## 8. How much forest area is damaged each year?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 8.1 Categories and definitions

| Category              | Definition  |
|-----------------------|---|
| Number of fires       | Number of fires per year  |
| Burned area           | Area burned per year  |
| Outbreaks of insects  | A detectable reduction in forest health caused by a sudden increase in numbers of harmful insects.  |
| Outbreaks of diseases | A detectable reduction in forest health caused by a sudden increase in numbers of harmful pathogens, such as bacteria, fungi, phytoplasma or virus. |
| Severe weather events | Damage caused severe weather events, such as snow, storm, drought, etc.   |

### 8.2 National data

#### 8.2.1 Data sources

|   | References to sources of information | Variables | Years | Additional comments |
|---|--------------------------------------|-----------|-------|---------------------|
| 1 | N/A                                  | N/A       | N/A   | N/A                 |
| 2 | N/A                                  | N/A       | N/A   | N/A                 |
| 3 | N/A                                  | N/A       | N/A   | N/A                 |
| 4 | N/A                                  | N/A       | N/A   | N/A                 |

#### 8.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

#### 8.2.3 Original data

|  |
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|  |
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## 8.3 Analysis and processing of national data

### 8.3.1 Adjustment

### 8.3.2 Estimation and forecasting

### 8.3.3 Reclassification

## 8.4 Data

Table 8a

| Category  |                                 | 000 ha, number of fires |     |        |     |        |     |        |     |        |     |
|---|---------------------------------|-------------------------|-----|--------|-----|--------|-----|--------|-----|--------|-----|
|   |                                 | 2003                    |     | 2004   |     | 2005   |     | 2006   |     | 2007   |     |
|   |                                 | 000 ha                  | #   | 000 ha | #   | 000 ha | #   | 000 ha | #   | 000 ha | #   |
|  | Total land area burned          | 0                       | N/A | 0      | N/A | 0      | N/A | 0      | N/A | 0      | N/A |
|  | ... of which forest area burned | 0                       | N/A | 0      | N/A | 0      | N/A | 0      | N/A | 0      | N/A |
| Category  |                                 | 2008                    |     | 2009   |     | 2010   |     | 2011   |     | 2012   |     |
|   |                                 | 000 ha                  | #   | 000 ha | #   | 000 ha | #   | 000 ha | #   | 000 ha | #   |
|  | Total land area burned          | 0                       | N/A | 0      | N/A | 0      | N/A | 0      | N/A | 0      | N/A |
|  | ... of which forest area burned | 0                       | N/A | 0      | N/A | 0      | N/A | 0      | N/A | 0      | N/A |

Table 8b

| Outbreak category | Description/name | Year(s) of latest outbreak | Area damaged (000 hectares) |
|-------------------|------------------|----------------------------|-----------------------------|
| N/A               | N/A              | Early 1990s                | N/A                         |
| N/A               | N/A              | Early 1990s                | N/A                         |

|     |     |             |     |
|-----|-----|-------------|-----|
| N/A | N/A | Early 1990s | N/A |
| N/A | N/A | N/A         | N/A |
| N/A | N/A | N/A         | N/A |
| N/A | N/A | N/A         | N/A |
| N/A | N/A | N/A         | N/A |
| N/A | N/A | N/A         | N/A |
| N/A | N/A | N/A         | N/A |
| N/A | N/A | N/A         | N/A |

### Outbreak category

1 Insects

2 Diseases

3 Severe weather events

### Tiers

| Category   | Tier for status | Tier for trend |
|--|-----------------|----------------|
| Area affected by fire  | Tier 2          | Tier 2         |
| <ul style="list-style-type: none"> <li>• Insects</li> <li>• Diseases</li> <li>• Severe weather events</li> </ul> | Tier 1          | Tier 1         |

### Tier criteria

| Category   | Tier for status   | Tier for reported trend  |
|--|---|--|
| Burned area  | <b>Tier 3</b> : National fire monitoring routines<br><b>Tier 2</b> : Remote sensing surveys <b>Tier 1</b> :<br>Other                              | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> :<br>Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |
| <ul style="list-style-type: none"> <li>• Insects</li> <li>• Diseases</li> <li>• Severe weather events</li> </ul> | <b>Tier 3</b> : Systematic survey (e.g. via inventory or aerial damage assessment)<br><b>Tier 2</b> : Management records <b>Tier 1</b> :<br>Other | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> :<br>Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |

### 8.5 Comments

| Category | Comments related to data definitions etc | Comments on the reported trend |
|----------|--|--------------------------------|
|----------|--|--------------------------------|



|                       |     |     |
|-----------------------|-----|-----|
| Burned area           | N/A | N/A |
| Insects               | N/A | N/A |
| Diseases              | N/A | N/A |
| Severe weather events | N/A | N/A |

**Other general comments to the table**

N/A

## 9. What is the forest area with reduced canopy cover?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

| Category                  | Definition   |
|---------------------------|--|
| Reduction in canopy cover | Forest that has undergone a reduction of canopy cover of more than 20% between the years 2000 and 2010 within the forest canopy cover range of 30-80% as detected by the MODIS VCF sensor. |

Table 9

| Category                  | Area of forest with reduced canopy cover (000 ha) |
|---------------------------|---|
| Reduction in canopy cover | N/A   |

Tiers

| Category                  | Tier for reported trend |
|---------------------------|-------------------------|
| Reduction in canopy cover | N/A                     |

Tier criteria

| Category                  | Tier for reported trend  |
|---------------------------|--|
| Reduction in canopy cover | <b>Tier 3</b> : Remote sensing with ground truthing and/or Landsat imagery <b>Tier 2</b> : Remote sensing using Modis (using pre-filled data provided by FAO) <b>Tier 1</b> : Expert opinion |

Comments

| Category                  | Comments related to data definitions etc |
|---------------------------|--|
| Reduction in canopy cover | N/A                                      |

Other general comments

|  |
|--|
|  |
|--|

## 10. What forest policy and regulatory framework exists to support implementation of sustainable forest management SFM?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 10.1 Categories and definitions

| Category   | Definition   |
|--|--|
| Policies supporting sustainable forest management                    | Policies or strategies that explicitly encourage sustainable forest management.                      |
| Legislation and regulations supporting sustainable forest management | Legislation and regulations that govern and guide sustainable forest management, operations and use. |

### 10.2 National data

#### 10.2.1 Data sources

|   | References to sources of information | Variables | Years | Additional comments |
|---|--------------------------------------|-----------|-------|---------------------|
| 1 | N/A                                  | N/A       | N/A   | N/A                 |
| 2 | N/A                                  | N/A       | N/A   | N/A                 |
| 3 | N/A                                  | N/A       | N/A   | N/A                 |
| 4 | N/A                                  | N/A       | N/A   | N/A                 |

#### 10.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

#### 10.2.3 Original data

|  |
|--|
|  |
|--|

### 10.3 Data

Table 10

| Category   |          |              |                  |       |
|--|----------|--------------|------------------|-------|
|  | National | Sub-national |                  |       |
|  |          | Regional     | Provincial/State | Local |
| Policies supporting sustainable forest management                    |          |              |                  |       |
| ... of which, in <u>publicly</u> owned forests                       |          |              |                  |       |
| ... of which, in <u>privately</u> owned forests                      |          |              |                  |       |
| Legislation and regulations supporting sustainable forest management |          |              |                  |       |
| ... of which, in <u>publicly</u> owned forests                       |          |              |                  |       |
| ... of which, in <u>privately</u> owned forests                      |          |              |                  |       |

#### 10.4 Comments

| Variable / category  | Comments related to data definitions etc |
|--|--|
| Policies supporting sustainable forest management                    | N/A                                      |
| Legislation and regulations supporting sustainable forest management | N/A                                      |

Other general comments

|  |
|--|
|  |
|--|

## 11. Is there a national platform that promotes stakeholder participation in forest policy development?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 11.1 Categories and definitions

| Category                      | Definition  |
|-------------------------------|---|
| National stakeholder platform | A recognized procedure that a broad range of stakeholders can use to provide opinions, suggestions, analysis, recommendations and other input into the development of national forest policy. |

### 11.2 National data

#### 11.2.1 Data sources

|   | References to sources of information | Years | Additional comments |
|---|--------------------------------------|-------|---------------------|
| 1 | N/A                                  | N/A   | N/A                 |
| 2 | N/A                                  | N/A   | N/A                 |
| 3 | N/A                                  | N/A   | N/A                 |
| 4 | N/A                                  | N/A   | N/A                 |

Table 11

|   |  |
|---|--|
| <b>Is there a national platform that promotes or allows for stakeholder participation in forest policy development?</b> |  |
|---|--|

### 11.3 Comments

| Category                      | Comments related to data definitions etc |
|-------------------------------|--|
| National stakeholder platform | N/A                                      |

Other general comments

|  |
|--|
|  |
|--|

## 12. What is the forest area intended to be in permanent forest land use and how has it changed over time?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 12.1 Categories and definitions

| Category  | Definition  |
|---|---|
| Forest area intended to be in permanent forest land use     | Forest area that is designated or expected to be retained as forest and is highly unlikely to be converted to other land use. |
| ...of which permanent forest estate ( <i>sub-category</i> ) | Forest area that is designated by law or regulation to be retained as forest and may not be converted to other land use.      |

### 12.2 National data

#### 12.2.1 Data sources

|   | References to sources of information | Variables | Years | Additional comments |
|---|--------------------------------------|-----------|-------|---------------------|
| 1 | N/A                                  | N/A       | N/A   | N/A                 |
| 2 | N/A                                  | N/A       | N/A   | N/A                 |
| 3 | N/A                                  | N/A       | N/A   | N/A                 |
| 4 | N/A                                  | N/A       | N/A   | N/A                 |

#### 12.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

#### 12.2.3 Original data

|  |
|--|
|  |
|--|

### 12.3 Analysis and processing of national data



## 12.3.1 Adjustment

## 12.3.2 Estimation and forecasting

## 12.3.3 Reclassification

## 12.4 Data

Table 12

| Categories  |   | Forest area 2010 (000 ha) |
|---|---|---------------------------|
|  | Forest area intended to be in permanent forest land use | N/A                       |
|  | ... of which permanent forest estate                    | N/A                       |

## Tiers

| Category  | Tier for status |
|---|-----------------|
| Forest area intended to be in permanent forest land use | N/A             |
| Permanent forest estate                                 | N/A             |

## Tier Criteria

| Category  | Tier for status   |
|---|---|
| Forest area intended to be in permanent forest land use | <b>Tier 3</b> : National or sub-national land use plans strategy documents or other reports within the past 10 years<br><b>Tier 2</b> : National or sub-national land use plans strategy documents or other reports within the past 20 years<br><b>Tier 1</b> : Other |
| Permanent forest estate                                 | <b>Tier 3</b> : National or sub-national land use plans strategy documents or other reports within the past 10 years<br><b>Tier 2</b> : National or sub-national land use plans strategy documents or other reports within the past 20 years<br><b>Tier 1</b> : Other |

## 12.5 Comments

| Category  | Comments related to data definitions etc |
|---|--|
| Forest area intended to be in permanent forest land use | N/A                                      |
| Permanent forest estate                                 | N/A                                      |

Other general comments

|  |
|--|
|  |
|--|



### 13. How does your country measure and report progress towards SFM at the national level?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

#### 13.1 Categories and definitions

| Category   | Definition   |
|--|--|
| Forest area monitored under a national forest monitoring framework | Forest area monitored by a national monitoring framework or systems that provide measurement based periodic monitoring of forest extent and quality. |
| Forest reporting at national scale                                 | National reporting of forest extent and characteristics that includes some measure of progress toward sustainable forest management.                 |

#### 13.2 National data

##### 13.2.1 Data sources

|   | References to sources of information | Variables | Years | Additional comments |
|---|--------------------------------------|-----------|-------|---------------------|
| 1 | N/A                                  | N/A       | N/A   | N/A                 |
| 2 | N/A                                  | N/A       | N/A   | N/A                 |
| 3 | N/A                                  | N/A       | N/A   | N/A                 |
| 4 | N/A                                  | N/A       | N/A   | N/A                 |

##### 13.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |

#### 13.3 Data

Table 13a

| Category                 | % of total forest area | Most recent year | Check all boxes that apply |          |                        |                        |                                    |                                     |
|--------------------------|------------------------|------------------|----------------------------|----------|------------------------|------------------------|------------------------------------|-------------------------------------|
|                          |                        |                  | Continuous                 | Periodic | Permanent ground plots | Temporary ground plots | Aerial/remote sensing sample based | Aerial/remote sensing full coverage |
| Forest inventory         | N/A                    | N/A              |                            |          |                        |                        |                                    |                                     |
| Other field assessments  | N/A                    | N/A              |                            |          |                        |                        |                                    |                                     |
| Updates to other sources | N/A                    | N/A              |                            |          |                        |                        |                                    |                                     |
| Expert estimate          | N/A                    | N/A              |                            |          |                        |                        |                                    |                                     |

Table 13b

| Type of forest reporting used at national scale | Check boxes that apply |
|---|------------------------|
| 1 Criteria and Indicators reporting             |                        |
| 2 Periodic national state of the forest report  |                        |
| 3 Other (please document)                       |                        |
| 4 None  |                        |

| Other type of forest reporting |
|--------------------------------|
| N/A                            |

### 13.4 Comments

| Category | Comments |
|----------|----------|
| N/A      | N/A      |
| N/A      | N/A      |
| N/A      | N/A      |

Other general comments

|  |
|--|
|  |
|--|

## 14. What is the area of forest under a forest management plan and how is this monitored?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 14.1 Categories and definitions

| Category   | Definition  |
|--|---|
| Forest area with management plan                     | Forest area that has a long-term documented management plan, aiming at defined management goals which is periodically revised                 |
| ...of which for production ( <i>sub-category</i> )   | Forest management plan mainly focused on production   |
| ...of which for conservation ( <i>sub-category</i> ) | Forest management plan mainly focused on conservation   |
| Monitoring of forest management plans                | Government monitoring of forest management plan implementation conducted through field visits or audits of forest management plan performance |

### 14.2 National data

#### 14.2.1 Data sources

|   | References to sources of information                         | Variables | Years | Additional comments   |
|---|--|-----------|-------|---|
| 1 | Phoenix Islands Protected Area (PIPA) Information Fact Sheet | N/A       | 2006  | The designation of the Phoenix Islands Protected Area (PIPA) also includes terrestrial biodiversity conservation, which includes existing flora and fauna available in these islands. The designation of the PIPA came about after a series of scientific expeditions by a recognized research organization (New England Aquarium), who has been instrumental in advising the Government of Kiribati that these islands and surrounding marine environment have high biodiversity values that need to be protected. The PIPA is now the biggest protected area designated in the world. |
| 2 | PIPA Regulations 2008  | N/A       | 2008  | The PIPA Regulations 2008 is a regulation under the Environment Act 1999 (as amended 2007)  |

|   |   |                                       |      |  |
|---|---|---------------------------------------|------|--|
| 3 | Wildlife Conservation Ordinance   | N/A                                   | 1977 | The Wildlife Conservation Ordinance will be revised some time in 2009  |
| 4 | Government of Kiribati country report (1st) to the Conference of the Parties to the Convention on Biological Diversity (CBD) & Government of Kiribati National Biodiversity Strategies and Actions Plan (NBSAP – Kiribati)  | N/A                                   | 2005 | The country report and the NBSAP - Kiribati have been cabinet approved and are now ready for submission to the Secretariat of the Convention on Biological Diversity. Both the report and the NBSAP-Kiribati reflect baseline data on the status of protected areas and the conservation of biological diversity in the context of Kiribati as an atoll nation.              |
| 5 | Maps – Lands Management Division (LMD) of Ministry of Environment, Lands & Agricultural Development (MELAD)   | N/A                                   | N/A  | Be available later   |
| 6 | Metz, D.W. 1996. The Mangroves of Kiribati: An Inventory, Feasibility and Management Study. Vol 1. Prepared for Agriculture Division, MNRD, Republic of Kiribati by USDA Forest Service in collaboration with South Pacific Forestry Development Programme (FAO/UNDP/RAS/92/361) Suva, Fiji. Unpublished. | Mangroves on four islands in Kiribati | 1995 | This working paper is one of a series of publications prepared during the course (1992 – 96) of the UNDP/FAO South Pacific Forestry Development Programme. This is also one of the first comprehensive study on mangroves undertaken in Kiribati. This figure may be slightly on the lower side, since the extent of mangroves found in many small islands is not available. |

### 14.3 Data

Table 14a

| Forest plan type                 | Forest area 2010 (000 ha) |
|----------------------------------|---------------------------|
| Forest area with management plan | 0.258                     |
| ... of which for production      | N/A                       |
| ... of which for conservation    | N/A                       |

Table 14b

| Indicate which (if any) of the following are required in forest management plans in your country |  |
|--|--|
| 1 Soil and water management  |  |
| 2 High conservation value forest delineation   |  |

|   |  |
|---|--|
| 3 Social considerations community involvement |  |
|---|--|

Table 14c

|  |            |
|--|------------|
| <b>Percent of area under forest management plan that is monitored annually</b> | <b>N/A</b> |
|--|------------|

## Tiers

| <b>Category</b>   | <b>Tier for status</b> |
|---|------------------------|
| Forest area with management plan  | Tier 1                 |
| Percent of area under forest management plan that is monitored annually | N/A                    |

## Tier criteria

| <b>Category</b>   | <b>Tier for status</b>  |
|---|---|
| Forest area with management plan  | <b>Tier 3</b> : Reports that describe national records 5 years old or less that contain long-term forest monitoring plans <b>Tier 2</b> : Industry or other records indicating the presence of a long-term forest management plan <b>Tier 1</b> : Other |
| Percent of area under forest management plan that is monitored annually | <b>Tier 3</b> : Government documentation of monitoring extent <b>Tier 2</b> : Reports from forest managers or other documental sources <b>Tier 1</b> : Other  |

## 14.4 Comments

| <b>Category</b>                  | <b>Comments</b>  |
|----------------------------------|--|
| Forest area with management plan | Mangrove management plan has been completed since 1997 but this plan is yet to be fully implemented at national level. |
| N/A                              | N/A  |
| N/A                              | N/A  |

## Other general comments

|  |
|--|
|  |
|--|

## 15. How are stakeholders involved in the management decision making for publicly owned forests?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 15.1 Categories and definitions

| Category                | Definition  |
|-------------------------|---|
| Stakeholder involvement | Stakeholder involvement is defined as significant inputs into at least one aspect of forest management at the operational scale |

Table 15

| Please indicate the type of stakeholder involvement in forest management decision making required in your country |  |
|---|--|
| 1. Planning phase   |  |
| 2. Operations phase   |  |
| 3. Review of operations   |  |

Tiers

| Category                   | Tier for status |
|----------------------------|-----------------|
| Type of stakeholder inputs | N/A             |

Tier criteria

| Category                   | Tier for status  |
|----------------------------|--|
| Type of stakeholder inputs | <b>Tier 3</b> : Government (national or sub-national) documentation of stakeholder inputs<br><b>Tier 2</b> : Government (national or subnational) requirement but stakeholder inputs not documented<br><b>Tier 1</b> : Other |

### 15.2 Comments

| Category | Comments |
|----------|----------|
| N/A      | N/A      |
| N/A      | N/A      |
| N/A      | N/A      |

Other general comments

|  |
|--|
|  |
|--|

## 16. What is the area of forest under an independently verified forest certification scheme?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 16.1 Categories and definitions

| Category  | Definition   |
|---|--|
| FSC certification   | Forest area certified under the Forest Stewardship Council certification scheme  |
| PEFC certification  | Forest area certified under the Programme for the Endorsement of Forest Certification scheme   |
| Other international forest management certification                           | Forest area certified under an international forest management certification scheme with published standards and is independently verified by a third-party, excluding FSC and PEFC certification. |
| Certified forest area using a domestic forest management certification scheme | Area certified under a forest management certification scheme with published standards that are nationally recognized and independently verified by a thirdparty                                   |

### 16.2 Data

Table 16a













| International forest management certification                                       |       | Forest area (000 ha) |      |      |      |      |      |      |
|---|-------|----------------------|------|------|------|------|------|------|
|   |       | 2000                 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|  | FSC   | 0                    | 0    | 0    | 0    | 0    | 0    | 0    |
|  | PEFC  | 0                    | 0    | 0    | 0    | 0    | 0    | 0    |
|  | Other | 0                    | 0    | 0    | 0    | 0    | 0    | 0    |
|   |       | 2007                 | 2008 | 2009 | 2010 | 2011 | 2012 |      |
|  | FSC   | 0                    | 0    | 0    | 0    | 0    | 0    |      |
|  | PEFC  | 0                    | 0    | 0    | 0    | 0    | 0    |      |
|  | Other | 0                    | 0    | 0    | 0    | 0    | 0    |      |

Table 16b

| Domestic forest management certification  |     | Forest area (000 ha) |      |      |      |      |      |      |
|---|-----|----------------------|------|------|------|------|------|------|
|   |     | 2000                 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|  | N/A | 0                    | 0    | 0    | 0    | 0    | 0    | 0    |
|  | N/A | 0                    | 0    | 0    | 0    | 0    | 0    | 0    |
|  | N/A | 0                    | 0    | 0    | 0    | 0    | 0    | 0    |

|   |  | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |  |
|---|--|------|------|------|------|------|------|--|
|  |  | 0    | 0    | 0    | 0    | 0    | 0    |  |
|  |  | 0    | 0    | 0    | 0    | 0    | 0    |  |
|  |  | 0    | 0    | 0    | 0    | 0    | 0    |  |

## Tier criteria

| Category   | Tier for status  |
|--|--|
| <b>International</b> forest management certification | Tier 3: International forest management scheme records maintained by the certifying organization for the reporting year<br>Tier 2: International forest management scheme records reported by the certifying organization for a period 2 years prior to the reporting year<br>Tier: 1 Other                    |
| <b>Domestic</b> forest management certification      | Tier 3: National registry reports for domestic forest management certification maintained by the certifying organization for the reporting year<br>Tier 2: Domestic forest management scheme records reported by the certifying organization for a period 2 years prior to the reporting year<br>Tier: 1 Other |

## Tiers

| Category   | Tier for status |
|--|-----------------|
| <b>International</b> forest management certification | N/A             |
| <b>Domestic</b> forest management certification      | N/A             |

## 16.3 Comments

| Category  | Comments related to data definitions etc |
|---|--|
| Certified forest area using an international forest management certification scheme | N/A                                      |
| Domestic forest management certification  | N/A                                      |

## Other general comments

|  |
|--|
|  |
|--|



## 17. How much money do governments collect from and spend on forests?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 17.1 Categories and definitions

| Category                       | Definition  |
|--------------------------------|---|
| Forest revenue                 | All government revenue collected from the domestic production and trade of forest products and services. For this purpose revenue include: <ul style="list-style-type: none"> <li>• <u>Goods</u> : roundwood; sawnwood; biomass; woodbased panels; pulp and paper and non-wood forest products.</li> <li>• <u>Services</u> : including concession fees and royalties, stumpage payments, public timber sales revenue taxes and charges based on forest area or yield, taxes on domestic trade and export of forest products, special levies on forestry activities and payments into forest related funds, other miscellaneous inspection, licence and administrative fees levied by forest administrations, permit and licence fees for recreation and other forest related activities.</li> </ul> |
| Public expenditure on forestry | All government expenditure on forest related activities.  |

### 17.2 National data

#### 17.2.1 Data sources

|   | References to sources of information | Variables  | Years | Additional comments  |
|---|--------------------------------------|--|-------|--|
| 1 | Agriculture and Livestock Department | First and second half of year (Progress report)- Ministry Operational Plan (MOP) | 2000  | N/A  |
| 2 | Kiribati Handicraft Local Produce    | N/A  | N/A   | Data has not been centralized and consolidated thus everything is scattered as well. However rough figures of annual revenue earned from handicrafts |
| 3 | Other sources                        | N/A  | N/A   | Some information obtained from home and neighbouring families and colleagues in the office.  |
| 4 | Women's Handicraft community         | N/A  | N/A   | No concrete data to refer to   |

### 17.3 Data

Table 17

| Category       | Revenues / expenditures (000 local currency) |      |      |
|----------------|--|------|------|
|                | 2000   | 2005 | 2010 |
| Forest revenue | 3  | 9    | N/A  |

|                                |      |      |      |
|--------------------------------|------|------|------|
| Public expenditure on forestry | N/A  | 1512 | N/A  |
|                                | 2000 | 2005 | 2010 |
| Name of Local Currency         | N/A  | N/A  | N/A  |

## 17.4 Comments

| Category                       | Comments related to data definitions etc   |
|--------------------------------|--|
| Forest revenue                 | Not applicable in terms of direct forest revenue for the Government, however the outer island communities have been relying on local trees such as pandanus, coconut trees, mangroves, casuarina trees (introduced), te uri ( <i>Guettarda speciosa</i> ) and te mao ( <i>Scaevola sericea</i> Vahl), te ren ( <i>Tournefortia samoensis</i> ), and te ngea (iron tree) for construction and other needs. Other revenue comes from the national public handicraft and local produce, while others are derived from the women's community. The data and information on these activities is too vague and scattered as well. There are a number of local produce and handicrafts which have been sold out in local markets and in overseas markets, i.e. Australia, Japan. Other revenue sources will soon earned from local juice, jams and such that are made from pandanus fruits, pumpkin and other vegetables and fruits. |
| Public expenditure on forestry | Not applicable as there is no formal organizational arrangement, however through Government under its National budget each ministry in particular MELAD-ALD & ECD are given money through the recurrent budget to carry out a number of forestry related activities, while others comes from overseas grants through SPC, FAO, Cosmo Oil Co Japan, etc. No formal institutional arrangements, however the forestry activities are encompassed under the Agriculture Department. Coconut replanting in the 1970s was one example where the Government paid out money to landowners on the outer islands to plant trees on their land in particular the coconut trees. The funding was from Overseas Development Assistant (ODA). This was one major project in Kiribati which the British initiated to maintain economic growth once the phosphate started to diminish.   |
| Other general comments         | N/A  |

Other general comments

|  |
|--|
|  |
|--|

## 18. Who owns and manages the forests and how has this changed?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 18.1 Categories and definitions

| Category   | Definition   |
|--|--|
| Public ownership   | Forest owned by the State or administrative units of the public administration or by institutions or corporations owned by the public administration.  |
| ...of which owned by the state at national scale<br>( <i>sub-category</i> )                    | Forest owned by the State at the national scale or administrative units of the public administration or by institutions or corporations owned by the public administration.  |
| ...of which owned by the state at the sub-national government scale<br>( <i>sub-category</i> ) | Forest owned by the State at the sub-national government scale or administrative units of the public administration or by institutions or corporations owned by the public administration.   |
| Private ownership  | Forest owned by individuals, families, communities, private cooperatives corporations and other business entities, private, religious and educational institutions, pension or investment funds, NGOs, nature conservation associations and other private institutions.  |
| ...of which individuals<br>( <i>sub-category</i> )   | Forest owned by individuals and families.  |
| ...of which private business entities and institutions<br>( <i>sub-category</i> )              | Forest owned by private corporations cooperatives companies and other business entities as well as private nonprofit organizations such as NGOs nature conservation associations, and private religious and educational institutions etc.  |
| ...of which local tribal and indigenous communities<br>( <i>sub-category</i> )                 | Forest owned by a group of individuals belonging to the same community residing within or in the vicinity of a forest area or forest owned by communities of indigenous or tribal people The community members are coowners that share exclusive rights and duties and benefits contribute to the community development. |
| Unknown ownership  | Forest area where ownership is unknown includes areas where ownership is unclear or disputed.  |
| Categories related to management rights of public forests                                      | Definition   |
| Public Administration  | The Public Administration (or institutions or corporations owned by the Public Administration) retains management rights and responsibilities within the limits specified by the legislation.  |
| Individuals households   | Forest management rights and responsibilities are transferred from the Public Administration to individuals or households through long-term leases or management agreements.   |
| Private companies  | Forest management rights and responsibilities are transferred from the Public Administration to corporations, other business entities private cooperatives, private nonprofit institutions and associations, etc., through long-term leases or management agreements.  |
| Communities  | Forest management rights and responsibilities are transferred from the Public Administration to local communities (including indigenous and tribal communities) through long-term leases or management agreements.   |
| Other form of management rights  | Forests for which the transfer of management rights does not belong to any of the categories mentioned above.  |

### 18.2 National data

## 18.2.1 Data sources

|   | References to sources of information      | Variables | Years | Additional comments |
|---|---|-----------|-------|---------------------|
| 1 | LMD Maps:                                 | N/A       | 2008  | N/A                 |
| 2 | Schlencker Mapping Pty Limited, Australia | N/A       | 1998  | N/A                 |
| 3 | N/A                                       | N/A       | N/A   | N/A                 |
| 4 | N/A                                       | N/A       | N/A   | N/A                 |

## 18.2.2 Classification and definitions

| National class                | Definition   |
|-------------------------------|--|
| Public Ownership              | Forest owned by State only.  |
| Private Ownership             | Forest owned by individuals, families and communities  |
| Individual Ownership          | Forest owned by individual and families only   |
| Private Business and entities | NA   |
| Local Communities             | Should be under private ownership. Local Communities can be happened in short terms due to the Village or island function. |
| Indigenous/Tribal Communities | NA   |

## 18.2.3 Original data

Data is with Lands Department from which are well consolidated but are not updated yet. 70% of the forest land is public, 30 % is private. A 5% of the private forest area belongs to individuals, no specific distribution for other types of private lands.

## 18.3 Analysis and processing of national data

## 18.3.1 Adjustment

Not yet assessed









## 18.3.2 Estimation and forecasting

Increase due to increase private ownership, however due to population increase forest ownership will decrease.

## 18.3.3 Reclassification

## 18.4 Data

Table 18a

| Categories  |  | Forest area (1000 hectares) |       |       |       |
|---|--|-----------------------------|-------|-------|-------|
|   |  | 1990                        | 2000  | 2005  | 2010  |
|    | Public ownership   | 8.505                       | 8.505 | 8.505 | 8.505 |
|    | ... of which owned by the state at national scale                    | N/A                         | N/A   | N/A   | N/A   |
|  | ... of which owned by the state at the sub-national government scale | N/A                         | N/A   | N/A   | N/A   |
|  | Private ownership  | 3.645                       | 3.645 | 3.645 | 3.645 |
|  | ... of which owned by individuals                                    | 0.182                       | 0.182 | 0.182 | 0.182 |
|  | ... of which owned by private business entities and institutions     | N/A                         | N/A   | N/A   | N/A   |
|  | ... of which owned by local, tribal and indigenous communities       | 0                           | 0     | 0     | 0     |
|  | Unknown ownership  | 0                           | 0     | 0     | 0     |
| TOTAL   |  | 12.15                       | 12.15 | 12.15 | 12.15 |

## Tiers

| Category          | Tier for status | Tier for reported trend |
|-------------------|-----------------|-------------------------|
| Public ownership  | Tier 1          | Tier 1                  |
| Private ownership | Tier 1          | Tier 1                  |
| Unknown ownership | Tier 1          | Tier 1                  |

## Tier criteria

| Category  | Tier for status  | Tier for reported trend   |
|-----------|--|---|
| Ownership | Tier 3: National forestry statistics registers of land titles or maps on land ownership or all forest area under one ownership category that is five years old or less. Tier 2: National forestry statistics registers of land titles or maps on land ownership or questionnaires that are more than five years old. Tier 1: Other | <b>Tier 3</b> : Estimate based on repeated compatible tiers 3 (tier for status) <b>Tier 2</b> : Estimate based on repeated compatible tier 2 or combination tier 3 and 2 or 1 (tier for status) <b>Tier 1</b> : Other |

Table 18b - Holder of management rights of public forests

| Categories            | Forest area (000 hectares) |      |      |      |
|-----------------------|----------------------------|------|------|------|
|                       | 1990                       | 2000 | 2005 | 2010 |
| Public Administration | N/A                        | N/A  | N/A  | N/A  |
| Individuals           | N/A                        | N/A  | N/A  | N/A  |
| Private companies     | N/A                        | N/A  | N/A  | N/A  |
| Communities           | N/A                        | N/A  | N/A  | N/A  |
| Other                 | N/A                        | N/A  | N/A  | N/A  |
| TOTAL                 | .00                        | .00  | .00  | .00  |

| Category              | Tier for reported trend | Tier for status |
|-----------------------|-------------------------|-----------------|
| Public Administration | N/A                     | N/A             |
| Individuals           | N/A                     | N/A             |
| Private companies     | N/A                     | N/A             |
| Communities           | N/A                     | N/A             |
| Other                 | N/A                     | N/A             |

## 18.5 Comments

| Category         | Comments related to data definitions etc                     | Comments on the reported trend                |
|------------------|--|---|
| Public ownership | Government land areas mainly in the Line and Phoenix Islands | Includes littoral forest and mangroves areas. |

|                   |   |                              |
|-------------------|---|------------------------------|
| Private ownership | The forest percent coverage is 30% due to very small land area of each of the islands of which owned by private owners Applicable for lands owned by individuals. It also applicable to an individual who buys/lease land from public Administration  | Include coconut plantations. |
| Unknown ownership | Applicable to lands used by private companies, churches and schools   | N/A                          |
| Management rights | Government have full management right, however on the outer islands and through the local Government the private and individual land owner may have their management rights. In Butaritari (Northern Part of Kiribati). Lands and forests are free to be accessed in special occasions e.g. for catechist and church purposes | N/A                          |

**Other general comments to the table**

Data is with Lands Department from which are well consolidated but are not updated yet. 70% of the forest land is public, 30 % is private. A 5% of the private forest area belongs to individuals, no specific distribution for other types of private lands.

## 19. How many people are directly employed in forestry?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 19.1 Categories and definitions

| Category                    | Definition   |
|-----------------------------|--|
| Full-time equivalents (FTE) | A measurement equal to one person working full-time during a specified reference period.   |
| Employment in forestry      | Employment in activities related to production of goods derived from forests. This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging). |

### 19.2 National data

#### 19.2.1 Data sources

|   | References to sources of information                              | Variables | Years  | Additional comments |
|---|---|-----------|--|---------------------|
| 1 | Report on the 2000 Census of Population                           | 2000      | Information is sufficient and the figures given in tables below are based on analysis by this office | N/A                 |
| 2 | 2005 Census of Population, Volume 1: Basic Information and tables | 2005      | Information is sufficient and the figures given in tables below are based on analysis by this office | N/A                 |
| 3 | Kiribati 2005 Census, Volume 2: Analytical Report                 | 2005      | Information is sufficient and the figures given in tables below are based on analysis by this office | N/A                 |
| 4 | Report on 1990 Census of Population.                              | 1990      | Information is sufficient and the figures given in tables below are based on analysis by this office | N/A                 |

#### 19.2.2 Classification and definitions

| National class | Definition |
|----------------|------------|
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |
| N/A            | N/A        |





## 19.2.3 Original data

General data is well consolidated but without specific information on forestry.

## 19.3 Data

Table 19

| Category  |                        | Employment (000 years FTE) |      |      |      |
|---|------------------------|----------------------------|------|------|------|
|   |                        | 1990                       | 2000 | 2005 | 2010 |
|  | Employment in forestry | N/A                        | N/A  | N/A  | N/A  |
|  | ... of which female    | N/A                        | N/A  | N/A  | N/A  |

## 19.4 Comments

| Category               | Comments related to data definitions etc  | Comments on the reported trend |
|------------------------|---|--------------------------------|
| Employment in forestry | According Statistics figures, out of total population in 2005 which is 90,000+ a portion of it is approximately (69%) involved with primary production only, but not exclusively on forestry. | N/A                            |

| Other general comments to the table |
|-------------------------------------|
| N/A                                 |

## 20. What is the contribution of forestry to Gross Domestic Product (GDP)?

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 20.1 Categories and definitions

| Category  | Definition   |
|---|--|
| Gross value added from forestry (at basic prices) | This category corresponds to the ISIC/NACE Rev. 4 activity A02 (Forestry and logging). |

### 20.2 Data

Table 20 (Pre-filled data from UNdata/EUROSTAT)

| Category  | Million | Currency | Year for latest available information |
|---|---------|----------|---------------------------------------|
| Gross value added from forestry (at basic prices) | N/A     | N/A      | N/A                                   |

### 20.3 Comments

| Category | Comments |
|----------|----------|
| N/A      | N/A      |

Other general comments

|  |
|--|
|  |
|--|

## 21. What is forest area likely to be in the future

Documents for this question:

- [Guide for country reporting FRA 2015](#)
- [FRA 2015 Terms and Definitions](#)

### 21.1 Categories and definitions

| Category                                     | Definition  |
|--|---|
| Government target/aspiration for forest area | Government target/aspiration for forest area for a specific year.                           |
| Forests earmarked for conversion             | Forest area that is allocated/classified or scheduled to be converted into non-forest uses. |

### 21.2 National data

#### 21.2.1 Data sources

|   | References to sources of information | Variables | Years | Additional comments |
|---|--------------------------------------|-----------|-------|---------------------|
| 1 | N/A                                  | N/A       | N/A   | N/A                 |
| 2 | N/A                                  | N/A       | N/A   | N/A                 |
| 3 | N/A                                  | N/A       | N/A   | N/A                 |
| 4 | N/A                                  | N/A       | N/A   | N/A                 |

### 21.3 Data

Table 21a

| Category                                     | Forest area (000 ha) |      |
|--|----------------------|------|
|  | 2020                 | 2030 |
| Government target/aspiration for forest area | N/A                  | N/A  |

Table 21b

| Category                         | Forest area (000 ha) |
|----------------------------------|----------------------|
|                                  | 2013                 |
| Forests earmarked for conversion | N/A                  |

### 21.4 Comments

| Category                                     | Comments |
|--|----------|
| Government target/aspiration for forest area | N/A      |

---

|                                  |
|----------------------------------|
| Forests earmarked for conversion |
|----------------------------------|

|     |
|-----|
| N/A |
|-----|

Other general comments

|  |
|--|
|  |
|--|