Evaluation of the proposed KPA [Kiribati Port Authority] organisational structure for the new millennium

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Evaluation of the Proposed KPA Organisational Structure for the New Millennium

By

MOARIETA IENTAAKE

Republic of Kiribati

A dissertation submitted to the World Maritime University in partial fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE

in

PORT MANAGEMENT

1999

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DECLARATION

I certify that all the materials in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessary endorsed by the University

(Signature)

16 August, 1999

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DEDICATION

I would like to dedicate this book to the following:

• To my loving Saviour and LORD: God the Father, SON and HOLY SPIRIT
• To my wife, Mrs Tebwebwenimi Moarieta,
• To my lovely cute daughters: Rinta and Mereaan
• To my handsome strong son: Kairirieta
• To my child who is expected to be born sometimes September 1999, you are always on my prayers that God will see you through.
• To my beloved Daddy: Ientaake Kairirieta and my Mummy: Ariti Tabekia.
• To my caring and supportive father-in-law: Tetoa Ubaitoi and my mother-in-law: Ariti Eriabu
• My brothers: Retibita, Iobwebwe, Moannata and Areataake and my only sister Aketa.

I sincerely thank you all for your prayers, support and understanding that gave me strength to strive on till this very end. It is not easy to be away from home, but let us all rejoice in the LORD for we have finally made it, through God’s grace.

I wish one and all the LORD’S blessing:

“May the LORD bless you and take care of you, may the LORD be kind and gracious to you, may the LORD look on you with favour and give you peace” in the name of the FATHER, SON and HOLY SPIRIT; Amen. (Numbers 6:24-25)
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• My wife – Tebwebwenimi, without you I would not make it this far. My success is a sign of a loving, supportive and understanding wife. Thank you so much my dearest and only one.

• My children, I wish one day you will make it to World Maritime University and I would recommend that this should be the first book you should look for. May the LORD bless my children.

• My friends – Study group syndicate (Mr Mwambire Alii from the Kenyan Port Authority, Mr Pinwa ThankGod from Nigerian Port Authority, Mr Kakusa Modest from Tanzanian Port Authority); my colleagues in my class Port Management 1999 including my fellow members of 1999 WMU Student council; thank you for the companionship which makes one forgets about home-sickness.

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• My brothers and a sister for your support and understanding. Thank you very much.

• To those who have contributed in one way or another, thank you all.

• Above all, I wish to take this opportunity to express my sincere gratitude and thanks to the God of LOVE: God the Father, Son (Jesus Christ) and Holy Spirit for giving me power and strength to overcome the many barriers I faced during my 17 months study. God be praised.
Title of Dissertation: Evaluation of the Proposed KPA Organisational Structure for the New Millennium

Degree: MSc

The aim of this dissertation is to evaluate JICA and ESCAP proposed organisational structures for the first envisaged Kiribati Port Authority (KPA) with the view to integrating the two in comparison with the Malta Maritime Authority (MMA) organisational structure. The aim of evaluating the above consultants proposals is to sensitise government policy makers of the benefits of having a separate autonomous port authority from the shipping company. There are a lot of benefits such as the possibility of establishing KPA Training Institute, creation of over 2,795 employment and business opportunities, enhancement of the port and shipping sub-sectors are just the tip of the iceberg of what Kiribati will see from having a separate Port Authority. The Kiribati Government should seriously consider the institutional challenges including cross-subsidisation discussed in this book. Government policies such as separation of a Port Authority from a Shipping Company should not be delayed any longer.

The integrated proposed structure designed by author requires amendment of KPA Act 1990 to allow KPA to perform as an autonomous commercial entity. The integrated structure is not meant to supersede JICA and ESCAP proposals but to give the Government various alternatives to choose from. Besides the summary of conclusions and recommendations in chapter 7, an introduction and a conclusion for chapters 2 to 6 is also incorporated. This is to allow the busy Executive, Supervisor, Assessors or Co-assessors to read the entire book within a glance, to grasp the main thoughts the author wished the reader to understand and appreciate.

KEY WORDS: Pacific Ports, Cross-subsidisation, Port functions, Kiribati Port Organisational Structure.
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LIST OF ABBREVIATIONS AND OTHER EXPLANATIONS

AUD: Australian Dollar (currency) that is currently used with the local currency in Kiribati

BETIO PORT: Name of an islet where the country main port of call is situated (see appendices 19, 20 and 21). It is pronounced as “BESIO” PORT. It is also known in the South Pacific history of Second World War as the “Red Beach” where thousands of US marines and Japanese died on this part of the island. But now, Japan is the major donor to most of the South Pacific Islands, thank you for your generosity.

BHL Bali Hai Line (a foreign shipping company)

CCS Chief Container-line Service (a foreign shipping company)

DANPORT Danish Port Consultancy Reports. The first consultancy on separation of the Port Authority from KSSL followed by JICA and ESCAP.

EDI Electronic Data Inter-change or Exchange

ESCAP Economic and Social Co-operation for Asia and the Pacific (Consultant for establishing KPA). The third consultancy on establishment of KPA following JICA. This report will be evaluated in the dissertation.

G7 Group of seven most developed countries of Canada, France, Germany, Italy, Japan, UK and USA (Francou, 1998)

GDP Gross Domestic Product

ILO International Labour Organisation

IMO International Maritime Organisation under the UN

INMARSAT International Maritime Satellite Organisation

IPP Improvement of Port Performance training courses for Port Policy makers offered by UNCTAD.

ISO International Standard Organisation

IT Information Technology
JICA  Japan International Co-operation Agency. JICA is pronounced as “JAIKA”. The donor and the consultant for the current Improvement of Betio Port Project (see appendices 22a and 22b). A Japanese based Consultancy firm known as TETRA Company carried out the second consultancy for JICA following DANPORT. JICA will be discussed in some detail in the dissertation.

KIRIBATI:  The local name of the country named after Captain Gilbert. Kiribati is pronounced as KIRIBAS. I-KIRIBATI means the people of Kiribati as a whole.

KPA  Kiribati Port Authority. This will be the first Port Authority expected to be established in the country after the completion of the new container terminal, see appendices 22a and 22b. At the moment it is merged with the public shipping company. This is the subject of discussion in this book.

KSSL  Kiribati Shipping Services Ltd. The only Government-owned shipping company held responsible both for shipping and port operations. The Port division within KSSL, see appendices 3 and 4, will be separated to form KPA, see appendices 5 and 6. KSSL is also the subject of discussion in this dissertation.

MARPOL  Marine Pollution Convention 74/78

MICT  Ministry of Information, Communications and Transport, see appendix 1 for details. MICT is the parent ministry for KSSL and the envisaged new KPA. The author currently works in MICT but the plan is for him to be transferred to KPA, if everything works out right.

MMA  Malta Maritime Authority. Its organisational structure is adopted in the dissertation as it combines the best features of JICA and ESCAP proposals, see chapter 6, appendices 7a, 7b and 8 for further details.
NEPO  National Economic Planning Office under the Ministry of Finance & Economic Planning. The office is responsible for most of the fiscal and macroeconomic government policies analysis, assessment, monitoring and evaluation. The author’s current job in MICT is directly linked to this office.

OECD  Organisation for Economic Co-operation and Development

PDP  Port-workers Development Programme conducted by UNCTAD and ILO

SOLAS  Safety Of Life At Sea convention

STCW  Standard of Training, Certification and Watch-keeping convention

TETRA  A consultant commissioned on behalf of JICA to study the establishment of the new container terminal at the Betio Port, see appendices 22a-b and 23a-b. TETRA assignment is still on-going till the completion of the improvement plan of Betio Port sometimes late 1999 or early 2000 see appendices 22a and 22b. The author is designated as a local counter-part to TETRA. Thus, this dissertation can assist and facilitate government’s effort in establishing KPA.

TRAINMAR: It is a Port training courses offered by UNCTAD for port workers like middle to top management port staff including training of trainers.

UNCTAD  United Nations Conference on Trade and Development. Most of the evaluation criteria are adopted from UNCTAD’s recommendations and guidelines.

WMU  World Maritime University. It is IMO’s apex institution for maritime training and education. The programmes offered at WMU are post graduate programmes such as Post graduate certificate, Post graduate Diploma and Master of Science Degree in almost all areas of Maritime management, administration, education and safety etc. A sister university under IMO is Malta Maritime Law Institute specialising on every legal aspect of maritime laws and regulations.
LAST WORDS:

Dearest Reader:

The main text of this dissertation is only 96 pages. However, with the appendices it makes the book look voluminous. It should be noted that the appendices compliment and clarify the text more clearly. Thus, I would recommend that you take time to look at the appendices also. Due to a very limited time to keep fine-tuning the entire book, please accept my apology in advance if you come across some omissions due to inevitable typing errors. The following likely omissions should be noted:

- If you find a section or an item in a particular chapter say in chapter 5, any items referred to in this chapter should start with 5, however, if you are referred to say “see item 1.5” should be correctly read as 5.1.5. Similarly if you see an item referred to in the same chapter like 1.5.1 it should be correctly read as 5.1.5.1 if you are still in chapter 5 and not 1.5 and 1.5.1 under chapter 1.

I strongly suggest that you concentrate firstly on the introduction and conclusion for each chapter except chapter 1 and 7. Otherwise, the introduction and conclusion made in chapter 2 to chapter 6 summarise the main points I would like you to concentrate on.

I would really appreciate your comments and suggestions to improve the book. For your information, I will use the same book to assist the Kiribati Government in setting up the expected first KPA organisational structure. I shall finalise re-editing and refinement by the end of September 1999. Thus, I would appreciate if you could inform me of the outcome of your assessment as I need to include your comments in the book before a final hard-bound copy can be made for my Minister, Permanent Secretary and most probably for information of Cabinet. Of course, your inputs will be acknowledged in the book.
CHAPTER 1: INTRODUCTION

1.1. Problem definition:

Since July 1978 up until now, Kiribati Shipping Services Ltd (KSSL) which is a public owned company under the Ministry of Information, Communications and Transport (MICT); has been charged with dual responsibilities: to look after its own shipping commercial operation and at same time to look after the port operations. What happened over the last 21 years is that there has had been hardly any development of the port facilities. The reason being that the profit from the port operations which was supposed to be invested in new port facilities and in maintaining the existing port infrastructures were diverted to cross-subsidising the shipping operation. However, despite the long-standing cross-subsidising of the shipping operation, KSSL hardly showed any remarkable development or growth. In fact both Port and Shipping operations have been heavily dependent on grant-aid for acquisition of their capital assets such as acquisition of cargo cranes and new vessels due to their persistent cash-flow problems. A more detail problem analysis will follow in the subsequent chapters and sections.

Anyway, the Government intervention to improve both the Shipping and Port sub-sectors was through passing and approving of the KPA Act 1990 to establish the first Kiribati Port Authority (KPA). The Port division of KSSL will be merged or absorbed by KPA. This is a remarkable endeavour on the part of the Government to separate both the Port and Shipping to improve the country’s negative GDP. At the moment, the construction of AUD 68 million new container terminal is still on going
and expected to be completed sometimes 2,000 during which time KPA should have been established.

1.2. Reasons for selecting the topic

There are two reasons why the topic is selected:

Firstly, the Kiribati Port Authority (KPA) is not established yet as an autonomous body. To reiterate, its functions and duties are currently merged and undertaken by the Kiribati Shipping Services Ltd (KSSL) since July 1978 up until now. The Kiribati Government has passed the 1990 KPA Act as an effort towards separation of the Shipping and the Port operations. Thus, for any newly established organisation there has to be a clear organisational structure or else the company will end up in chaos and disorder. The Kiribati Government is, at the moment, quite indifferent to what and how should the newly established KPA be structured. Therefore, the author’s ambition is to resolve this problem right at the fore-front while KPA is still in its embryonic stage as the basis of recommendation to the Government.

Secondly, there are two prominent consultant studies in regards to the establishment of KPA. Tetra Company conducted a Kiribati Ports Study on behalf of Japan International Co-operation Agency (JICA) followed later by ESCAP. So the topic indicates that the author will evaluate the two reports. However, given this time constraint, the author will not be able to go through every aspect of the two Reports but shall concentrate on one particular area. That is, evaluation of the organisational structures of KPA as proposed by these two consulting bodies with reference to what the author gained in his studies at the World Maritime University. So, the evaluation of these two reports shows a third party view that is very important in maintaining quality assurance.
1.3. Working thesis definition

1.3.1. Selected topic:

“Evaluation of KPA Organisational Structure for the new millennium.”

1.3.2. Objectives of the dissertation:

- To evaluate the proposed organisational structure of JICA for the envisaged KPA
- To evaluate the proposed organisational structure of ESCAP for KPA
- To evaluate the above proposals adopting port comparison concepts with Malta Maritime Authority organisational structure
- To integrate the above organisational structure to form the basis of another proposal and alternative to the Government of Kiribati
- To assist the author in establishing the envisaged KPA organisation on successful appointment or transfer from MICT to KPA.

1.3.3. Targeted readers

- Supervisor, Assessor, Co-assessor and any other interested readers in maritime management problems typical of developing small island nations Kiribati government Port.
- Policy decision-makers especially the Honourable Minister of Transport and Permanent Secretary. This is the reason for including the introduction and conclusion sections at the end of each chapter summarising the main arguments and conclusions the author wants the reader to understand and appreciate. This would allow the busy Executives like the Honourable Minister and the Permanent Secretary to glean the main points at a glance, I guarantee you.
1.3.4. Topic definition.

The above topic has four key words that needs clarification at the start.

- What do I mean by evaluation and how to conduct it?
- Background information about the Kiribati Port Authority. It will be discussed in chapters 2,3 and 4.
- Definition of organisational structure discussed in chapter 4
- Organisational structure for the millennium also discussed in chapter 4 concerning modern organisation principles.

What is evaluation?

According to Collins COBUILD English Dictionary: “Evaluation is a noun of the word evaluate. If you evaluate something or someone, you consider them in order to make a judgement about them for example about how good or bad they are.” It is helpful to identify the type of evaluation at the start because many different activities can validly be called evaluation. Being clear on the type of evaluation is very useful for clarifying how the evaluation should take place.

According to Ramage, he identified 5 types of evaluation:

1. Formative evaluation
2. Evaluating effects of a system
3. Evaluating solely the effects of the organisational and psychological parts of a system
4. Evaluation of concepts (in research projects)
5. Evaluation for the sake of purchasing new products

The second, third and forth items above can be applied in this case. The dissertation is about evaluation of the effects of organisational changes, the effects of such
changes on the staff, evaluating concepts relevant to evaluation of organisational structures. The above types of evaluation can be presented in the chart below:

![Evaluation Matrix](image)

Figure 1.1: Evaluation Matrix

Evaluation criterions can be determined, in a number of ways, such as shown in the above chart:

1. Are you looking at the effects of a system (What it does to various groups of people and their work) or its objectives (how things are intended to be)?
2. Are you looking at the way things are now or their potential?

In this dissertation, the two questions above will be incorporated in the evaluation methodology; however, the evaluation criterions will be derived based on a case-by-case situation. It is very difficult to carry out a survey from the evaluation criterions due to foregoing problems. The evaluation methodology will be elaborated in the subsequent sections.

1.4. Scope of work and research difficulties

The scope of the study undertaken for this dissertation covers mainly the top management level such as the Board of Directors, General Manager and Divisional Managers and other relevant positions. There is not enough time to evaluate every level and every position within the overall structure. Furthermore, the following problems in the research are inevitable: difficulty in getting up to date data and
information, as I am not working directly with KSSL. Secondly, the issue discussed in this dissertation is a sensitive political issue, so obtaining of up to date information is quite hard. Lastly, the difficulty I faced in trying to evaluate Professional Port Management Consultants’ reports, that is JICA and ESCAP proposed organisational structure of KPA. To be frank, being a mere student of Port Management, I find it difficult to evaluate renowned Professionals in Port Management.

However, to overcome the problem, I adopted and applied guidelines and recommendation from other Port Management Professionals namely UNCTAD including what I learnt at the World Maritime University and also based on my field-study observation to evaluate JICA and ESCAP proposals. This explains the reason why it is impossible to conduct a quantitative survey for the evaluation exercise.
1.5. Research Methodology

The method of research undertaken for this dissertation includes port comparison of proposed organisational structures through: open literature research, interviews, Kiribati Government Reports, field study observation as summarised in the diagram below:

Figure 1.2: Overall methodology
The methodology adopted chapters 4 and 5 will be as follows:

![Diagram](image.png)

Figure 1.3: Evaluation methodology for chapters 4-5

The above approach will not only be confined to chapter 4 and 5 but also chapter three. The evaluation will be based on selected evaluation criterions discussed in the subsequent chapters.

The following figure 1.5 illustrates the general methodology for designing the proposed organisational structure in Chapter 6. The basic method is through port comparison, based on Professor Ma’s lectures and handouts on the subject, of the organisational structure of Malta Maritime Authority with JICA and ESCAP proposed structures. Detail discussion of the rationales of selecting Malta is in chapter 6. Port comparison or comparison in general is one of the best methods of evaluation. Based on my discussion with the Academic Registrar of World Maritime University, he said that the evaluation procedure adopted by the
University is also based on the same principle – Comparison of the evaluation system adopted in other Universities.

For chapter 6, the following evaluation method may be adopted:

The Government effort in establishing a new Kiribati Port Authority requires a sound organisational to be designed and evaluated at the earliest stage to avoid future complications. The complications of a poorly structured organisation are many but can be summarised as

A sound organisational structure means a sound port productivity
CHAPTER 2: CURRENT SITUATION OF KIRIBATI SHIPPING SERVICES LTD

INTRODUCTION

The aim of chapter two is to analyse the general background, financial performance of both KSSL and the Port division. The chapter will also discuss some of the problems that are affecting KSSL performance. It is impossible to conduct the evaluation exercise before having known all surrounding circumstances affecting KSSL and the expected first Port Authority – Kiribati Port Authority. A conclusion is made at the end of this chapter 2 to summarise the author’s main points (arguments and conclusions) that he wanted the reader to know and understand.

2.1. General background

Before going into detail analysis of the management structure of KPA, it is important to know every surrounding circumstance that may influence the operation of KPA. Thus, a country profile where KPA is located would be briefly discussed in the subsequent sections.

2.1.1. Socio-economic situation:

The economy of Kiribati has been stagnant and very slow due to a number of development constraints such as: lack of skilled and qualified workers, lack of capital, geographical remoteness of the country from the main world markets at US, Europe and Asia and compounded with infertile soil. Despite the aims and
aspirations of the government in improving the GDP, the GDP remains stagnant as shown below:

Table 2.1.: Key Kiribati Financial & Economic Indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total current GDP at Factor cost (A$'000)</td>
<td>40,391</td>
<td>46,616</td>
<td>49,331</td>
</tr>
<tr>
<td>Current GDP Growth</td>
<td>13</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Export of Goods as % of GDP</td>
<td>18</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>Scale of Govt expenditure &amp; Revenue (A$'000)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recurrent Expenditure</td>
<td>34,197</td>
<td>46,897</td>
<td>48,652</td>
</tr>
<tr>
<td>Recurrent Revenue</td>
<td>32,656</td>
<td>48,364</td>
<td>44,518</td>
</tr>
<tr>
<td>Retail Price Index (CPI) % change</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Development Fund Flows (A$'000)</td>
<td>18,388</td>
<td>19,638</td>
<td>24,290</td>
</tr>
<tr>
<td>External Transactions (A$'000)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance of Trade</td>
<td>-29,005</td>
<td>-37,517</td>
<td>-41,766</td>
</tr>
<tr>
<td>Merchandise Exports (FOB)</td>
<td>7,110</td>
<td>10,030</td>
<td>6,817</td>
</tr>
<tr>
<td>Merchandise imports (FOB)</td>
<td>36,115</td>
<td>47,547</td>
<td>48,513</td>
</tr>
<tr>
<td>Major Exports (A$'000)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copra</td>
<td>4,480</td>
<td>6,366</td>
<td>3,605</td>
</tr>
<tr>
<td>Fish</td>
<td>263</td>
<td>266</td>
<td>211</td>
</tr>
<tr>
<td>Petfish</td>
<td>551</td>
<td>817</td>
<td>639</td>
</tr>
<tr>
<td>Beef-demer</td>
<td>764</td>
<td>379</td>
<td>789</td>
</tr>
</tbody>
</table>

Source: NEPO (1996a)

Table 2.1. shows the latest available financial and economic indicators. The important point is the increasing trade deficit at an annual average rate of 17%. What it means is that the country is heavily dependent on imports with very limited export of about 18% of the GDP over the three-year periods shown in the table. Further discussion of the trade pattern shall follow.

2.1.2. Trade Pattern

Most of the islands of Kiribati are made up of coral atolls with its inherent poor soil for agriculture and subsistence farming. Thus, the country is dependent for most of its basic necessities on imported goods. Major exports are mainly copra and fish. Kiribati has been experiencing excessive trade deficits due to its limited exports of only copra and fish (see Table 2.1 above). The major trade partners for import includes Australia, New Zealand, European Union, Japan, China and Fiji in recent years.
There are three shipping lines providing service for imports and exports to the country namely Chief Container Line (CCS) from Australia, Kiribati Shipping Service Limited from New Zealand and Fiji and Bali Hai Line (BHL) from Japan. The frequency of the services is low due to very low volume of exports compounded with a long distance to the country. An average number of ship's call at the port is about 60 a year.

All foreign cargoes are handled at Tarawa Island at Betio Port. In 1993, the port handled about 62,000 ton of cargoes consisting of 50,000 ton of import and 12,000 ton of export as shown in Table 2.2 below. Following a worldwide trend of containerisation rate of about 80% in recent years, most of the imported cargoes would still be handled in container.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>IMPORT Container</th>
<th>TOTAL Excl TEU</th>
<th>TOTAL B.Fuel</th>
<th>EXPORT GEN COPRA</th>
<th>EXPORT TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>11562</td>
<td>625</td>
<td>11656</td>
<td>23218</td>
<td>6999</td>
</tr>
<tr>
<td>1984</td>
<td>13486</td>
<td>687</td>
<td>925</td>
<td>22411</td>
<td>6573</td>
</tr>
<tr>
<td>1985</td>
<td>15084</td>
<td>784</td>
<td>5020</td>
<td>20104</td>
<td>5091</td>
</tr>
<tr>
<td>1986</td>
<td>14511</td>
<td>733</td>
<td>17562</td>
<td>32073</td>
<td>5295</td>
</tr>
<tr>
<td>1987</td>
<td>18881</td>
<td>982</td>
<td>10096</td>
<td>28977</td>
<td>6311</td>
</tr>
<tr>
<td>1988</td>
<td>18845</td>
<td>932</td>
<td>8299</td>
<td>27144</td>
<td>7126</td>
</tr>
<tr>
<td>1989</td>
<td>22639</td>
<td>1243</td>
<td>7000</td>
<td>29639</td>
<td>6605</td>
</tr>
<tr>
<td>1990</td>
<td>29045</td>
<td>1547</td>
<td>7417</td>
<td>36462</td>
<td>7569</td>
</tr>
<tr>
<td>1991</td>
<td>26197</td>
<td>1373</td>
<td>4636</td>
<td>30833</td>
<td>8910</td>
</tr>
<tr>
<td>1992</td>
<td>25381</td>
<td>1294</td>
<td>6949</td>
<td>32330</td>
<td>9464</td>
</tr>
<tr>
<td>1993</td>
<td>31080</td>
<td>1549</td>
<td>9704</td>
<td>40784</td>
<td>9125</td>
</tr>
</tbody>
</table>

Source: JICA

Distribution of Market share for foreign cargoes: 60% CCS 30% KSSL 10% BHL
TABLE 2.3: Domestic Cargo statistics 1983-1993

<table>
<thead>
<tr>
<th>Year</th>
<th>Outgoing</th>
<th>Incoming</th>
<th>Copra</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>4543.3</td>
<td>444.3</td>
<td>3038.6</td>
<td>8026.2</td>
</tr>
<tr>
<td>1984</td>
<td>5892.6</td>
<td>867</td>
<td>5536.9</td>
<td>12296.5</td>
</tr>
<tr>
<td>1985</td>
<td>5942.9</td>
<td>1044.6</td>
<td>4334.1</td>
<td>11321.6</td>
</tr>
<tr>
<td>1986</td>
<td>5722.9</td>
<td>1109.7</td>
<td>2756.6</td>
<td>9591.2</td>
</tr>
<tr>
<td>1987</td>
<td>6427.4</td>
<td>827.4</td>
<td>2806.1</td>
<td>10060.9</td>
</tr>
<tr>
<td>1988</td>
<td>8908.3</td>
<td>942.3</td>
<td>8717.8</td>
<td>18568.4</td>
</tr>
<tr>
<td>1989</td>
<td>7380.4</td>
<td>1246.7</td>
<td>6646.4</td>
<td>15275.5</td>
</tr>
<tr>
<td>1990</td>
<td>7134.5</td>
<td>1267.7</td>
<td>3249.1</td>
<td>11651.3</td>
</tr>
<tr>
<td>1991</td>
<td>9498.1</td>
<td>1661.3</td>
<td>4085.7</td>
<td>15245.1</td>
</tr>
<tr>
<td>1992</td>
<td>11624.9</td>
<td>2038.2</td>
<td>5049.2</td>
<td>18712.3</td>
</tr>
<tr>
<td>1993</td>
<td>9081.5</td>
<td>1153.7</td>
<td>4032.7</td>
<td>14267.9</td>
</tr>
</tbody>
</table>

Distribution of Market share of domestic is as follows:
70% KSSL
30% Privates

Source: ESCAP

TABLE 2.4: Number of foreign ships’ call 1989-1996

<table>
<thead>
<tr>
<th>Year</th>
<th>Container Cargo Carrier</th>
<th>General Cargo</th>
<th>Tanker Carrier</th>
<th>Copra Carrier</th>
<th>Fishing Boat</th>
<th>Reef Container</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>25</td>
<td>23</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>63</td>
</tr>
<tr>
<td>1990</td>
<td>33</td>
<td>10</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>59</td>
</tr>
<tr>
<td>1991</td>
<td>31</td>
<td>7</td>
<td>10</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td>1992</td>
<td>30</td>
<td>6</td>
<td>14</td>
<td>4</td>
<td>9</td>
<td>0</td>
<td>2</td>
<td>65</td>
</tr>
<tr>
<td>1993</td>
<td>29</td>
<td>15</td>
<td>11</td>
<td>5</td>
<td>9</td>
<td>0</td>
<td>23</td>
<td>92</td>
</tr>
<tr>
<td>1994</td>
<td>40</td>
<td>4</td>
<td>13</td>
<td>2</td>
<td>86</td>
<td>22</td>
<td>1</td>
<td>168</td>
</tr>
<tr>
<td>1995</td>
<td>38</td>
<td>4</td>
<td>14</td>
<td>3</td>
<td>12</td>
<td>2</td>
<td>4</td>
<td>77</td>
</tr>
<tr>
<td>1996</td>
<td>14</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: ESCAP

The trend in Table 2.4 above shows a decreasing number of overseas shipping calls at an estimated average annual rate of 34%. This is one of the challenges that KPA will face.
TABLE 2.5: Passenger Statistics 1983-1993

<table>
<thead>
<tr>
<th>Year</th>
<th>Outgoing</th>
<th>Inter-island</th>
<th>Incoming</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>2362</td>
<td>663</td>
<td>1856</td>
<td>4881</td>
</tr>
<tr>
<td>1984</td>
<td>2603</td>
<td>687</td>
<td>2319</td>
<td>5609</td>
</tr>
<tr>
<td>1985</td>
<td>2314</td>
<td>1241</td>
<td>2863</td>
<td>6418</td>
</tr>
<tr>
<td>1986</td>
<td>3505</td>
<td>687</td>
<td>2900</td>
<td>7092</td>
</tr>
<tr>
<td>1987</td>
<td>4375</td>
<td>498</td>
<td>3910</td>
<td>8783</td>
</tr>
<tr>
<td>1988</td>
<td>4486</td>
<td>496</td>
<td>4038</td>
<td>9020</td>
</tr>
<tr>
<td>1989</td>
<td>4356</td>
<td>1227</td>
<td>4150</td>
<td>9733</td>
</tr>
<tr>
<td>1990</td>
<td>4589</td>
<td>576</td>
<td>4078</td>
<td>9243</td>
</tr>
<tr>
<td>1991</td>
<td>7887</td>
<td>950</td>
<td>5530</td>
<td>14367</td>
</tr>
<tr>
<td>1992</td>
<td>8093</td>
<td>1051</td>
<td>5032</td>
<td>14176</td>
</tr>
<tr>
<td>1993</td>
<td>4696</td>
<td>863</td>
<td>5199</td>
<td>10758</td>
</tr>
</tbody>
</table>

Source: ESCAP

Similarly, it is possible to analyse the relationship between GDP and Trade as shown in the next Table 2.6 and figure 2.1.

TABLE 2.6: GDP Vs Trade

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP</th>
<th>IMPORT</th>
<th>EXPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>26,799</td>
<td>30,217</td>
<td>8,088</td>
</tr>
<tr>
<td>1984</td>
<td>31,475</td>
<td>28,984</td>
<td>11,711</td>
</tr>
<tr>
<td>1985</td>
<td>32,797</td>
<td>25,195</td>
<td>9,081</td>
</tr>
<tr>
<td>1986</td>
<td>35,943</td>
<td>37,368</td>
<td>4,172</td>
</tr>
<tr>
<td>1987</td>
<td>37,180</td>
<td>35,288</td>
<td>4,706</td>
</tr>
<tr>
<td>1988</td>
<td>42,496</td>
<td>34,270</td>
<td>9,543</td>
</tr>
<tr>
<td>1989</td>
<td>43,384</td>
<td>36,244</td>
<td>10,013</td>
</tr>
<tr>
<td>1990</td>
<td>43,430</td>
<td>44,031</td>
<td>4,948</td>
</tr>
<tr>
<td>1991</td>
<td>47,260</td>
<td>39,743</td>
<td>6,352</td>
</tr>
<tr>
<td>1992</td>
<td>50,706</td>
<td>41,794</td>
<td>10,730</td>
</tr>
<tr>
<td>1993</td>
<td>55,568</td>
<td>49,909</td>
<td>12,041</td>
</tr>
</tbody>
</table>

Source: JICA

Based on the outcome of my analysis of the effect of GDP on Trade, it shows that the country’s import is the determining factor of the country’s GDP as proven from a
high correlation of 0.9766 whereas export has no correlation at all with GDP. In fact, the above table shows the same result of a persistent trade deficit.

This result is not surprising since the port impact on the economy has not been felt because of the foregoing development constraints.

KSSL ships carry most of the domestic cargoes. In 1993, the volume of domestic cargoes carried by KSSL ships reached about 14,000 ton and number of passenger carried by KSSL ships recorded about 10,800 persons as shown in the previous Table 2.3 and Table 2.5.

2.1.3. Geographical location of KPA

The Republic of Kiribati (pronounced as Kiribas) consists of 33 islands, which are widely scattered over 4,500km east-west and 1,800km north-south of the Central South Pacific Ocean. Kiribati has a total land area of 811 square kilometres. Kiribati is divided into three archipelago groups for administrative purposes. The Gilbert group to the west, of 285 square kilometres of land area, the Phoenix group in the centre, of about 28 square kilometres of land area and the Line Islands to the
east of about 497 square kilometres of land area. See appendices 19, 20 and 21 for detail map of the Republic of Kiribati, Tarawa Island and existing site of Betio port.

Tarawa Island, main urban centre for the country, is situated in the Gilbert group where the main international port of call known, as Betio Port is located. It is very isolated from its major trading partners as far as 4,500 km from Australia, about 4,300 km from New Zealand and 5,200 km from Japan.

The major port of the country is Betio Port which is located 1° 21.4˚ and 172° 55.9˚ west at South West of Tarawa island at the Northern lagoon side of Betio Town in the Gilbert group. The second major port is London Wharf at Christmas Island in the Line groups with smaller outer island ports.

2.1.4. Demography Factors

The total population estimated in 1995 is 77,658 with an annual population growth rate ranging from 0.4% to 2.3% (JICA, 1995, 3-9). Approximately 93% of total population of about 77,658 (1995-population census) live in the Gilbert Islands. South Tarawa, where KPA will be situated has 1.94% of total land area with 35% of the population residing on the island while Christmas Island (Kiritimati) in the Line Islands has a population of only 3% but with the largest land area of 48% of the country’s total land area. The commercial and government centres are located in South Tarawa, which includes Betio.

2.2. Financial Performance of KSSL

KSSL final accounts from 1990s till now have not been audited. In fact, the former financial controller resigned followed by summary dismissal of the General Manager
due to, inter alia, backlog financial accounts compounded with financial crisis KSSL was facing over some legal settlements involving the company.

It is unfortunate to find that the latest financial record, which could be found, is shown in the following tables:

**TABLE 2.7:** Financial performance of KSSL 1984-1988 (A$'000)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REVENUE</td>
<td>3355.1</td>
<td>3310</td>
<td>3688.3</td>
<td>3308.8</td>
<td>4082.2</td>
</tr>
<tr>
<td>OPERATING EXPENDITURES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; wages</td>
<td>889.6</td>
<td>969.4</td>
<td>1095.8</td>
<td>1334.7</td>
<td>1497.3</td>
</tr>
<tr>
<td>Employees benefits &amp; related costs</td>
<td>215</td>
<td>290</td>
<td>197.1</td>
<td>318.8</td>
<td>342.8</td>
</tr>
<tr>
<td>Repairs, shipping &amp; others</td>
<td>419</td>
<td>723.6</td>
<td>773.3</td>
<td>841.4</td>
<td>1099.7</td>
</tr>
<tr>
<td>Fuel &amp; Lubricants</td>
<td>419.2</td>
<td>518.6</td>
<td>597.4</td>
<td>495.5</td>
<td>374</td>
</tr>
<tr>
<td>Depreciation</td>
<td>381.2</td>
<td>484.9</td>
<td>526.8</td>
<td>449.4</td>
<td>347.8</td>
</tr>
<tr>
<td>Interest on vessel loans</td>
<td>135.8</td>
<td>93.5</td>
<td>53</td>
<td>48.7</td>
<td>31</td>
</tr>
<tr>
<td>Insurance Premiums</td>
<td>137.7</td>
<td>291.2</td>
<td>165</td>
<td>126.2</td>
<td>139.8</td>
</tr>
<tr>
<td>Electricity &amp; water</td>
<td>55.5</td>
<td>44.3</td>
<td>48.1</td>
<td>39.5</td>
<td>46.9</td>
</tr>
<tr>
<td>Miscellaneous Expenses</td>
<td>176.6</td>
<td>43.9</td>
<td>77.2</td>
<td>69.5</td>
<td>83.2</td>
</tr>
<tr>
<td>Bad debt Provision</td>
<td>103.4</td>
<td>12.7</td>
<td>24.9</td>
<td>-39.1</td>
<td>-47</td>
</tr>
<tr>
<td>Operating Profit (Loss)</td>
<td>422.1</td>
<td>-162.1</td>
<td>129.7</td>
<td>-375.8</td>
<td>166.7</td>
</tr>
<tr>
<td>Prior year items</td>
<td>0</td>
<td>-174.1</td>
<td>83</td>
<td>0</td>
<td>-29</td>
</tr>
<tr>
<td>Asset valuation released</td>
<td>51.4</td>
<td>123.3</td>
<td>123.3</td>
<td>123.3</td>
<td>123.3</td>
</tr>
<tr>
<td>Exceptional items</td>
<td>0</td>
<td>74.7</td>
<td>0</td>
<td>-60</td>
<td>118.8</td>
</tr>
<tr>
<td>Profit on sale of fixed asset</td>
<td>0</td>
<td>6.4</td>
<td>4.6</td>
<td>19.3</td>
<td>-33.8</td>
</tr>
<tr>
<td>RETAINED EARNINGS</td>
<td>473.5</td>
<td>-131.8</td>
<td>340.6</td>
<td>-293.2</td>
<td>346</td>
</tr>
</tbody>
</table>

Source: DANPORT

Based on the above, it could be seen that KSSL as a whole is making a net profit of A$346,000. However, to verify JICA and ESCAP findings for the phenomenon of cross-subsidisation of shipping at the expense of the port, see Table 2.8.

In separating the three cost centres: Administration, Shipping and Port one can understand the reasons of lack of port upgrading and development of Betio from cross-subsidisation.
TABLE 2.8: ILLUSTRATION OF CROSS-SUBSIDIZATION OF KSSL FROM PORT

<table>
<thead>
<tr>
<th></th>
<th>ADMINISTRATION</th>
<th>SHIPPING</th>
<th>PORTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVENUE</td>
<td>57,787</td>
<td>2,445,177</td>
<td>1,579,228</td>
<td>4,082,192</td>
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<tr>
<td>OPERATING EXPENSES</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries &amp; wages</td>
<td>60,840</td>
<td>863,247</td>
<td>573,399</td>
<td>1,497,486</td>
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<tr>
<td>Employees benefits &amp; related costs</td>
<td>13,905</td>
<td>248,881</td>
<td>44,039</td>
<td>306,825</td>
</tr>
<tr>
<td>Repairs, shipping &amp; others</td>
<td>48,015</td>
<td>939,277</td>
<td>104,118</td>
<td>1,091,410</td>
</tr>
<tr>
<td>Fuel &amp; Lubricants</td>
<td>153</td>
<td>337,311</td>
<td>36,498</td>
<td>373,962</td>
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<tr>
<td>Depreciation</td>
<td>11,022</td>
<td>238,094</td>
<td>98,657</td>
<td>347,773</td>
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<tr>
<td>Interest on vessel loans</td>
<td>6,630</td>
<td>24,402</td>
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<td>31,032</td>
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<tr>
<td>Insurance Premiums</td>
<td>0</td>
<td>107,101</td>
<td>32,693</td>
<td>139,794</td>
</tr>
<tr>
<td>Electricity &amp; water</td>
<td>1,661</td>
<td>33,953</td>
<td>11,621</td>
<td>47,235</td>
</tr>
<tr>
<td>Miscellaneous Expenses</td>
<td>16,163</td>
<td>62,316</td>
<td>4,757</td>
<td>83,236</td>
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<td>Bad debt Provision</td>
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<tr>
<td>Operating Profit (Loss)</td>
<td>-95,902</td>
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<td>673,446</td>
<td>168,139</td>
</tr>
<tr>
<td>Prior year items</td>
<td>-29,027</td>
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<td>0</td>
<td>-29,027</td>
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<tr>
<td>Asset valuation released</td>
<td>0</td>
<td>123,742</td>
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<td>123,342</td>
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<tr>
<td>Exceptional items</td>
<td>0</td>
<td>118,847</td>
<td>0</td>
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</tr>
<tr>
<td>Profit on sale of fixed asset</td>
<td>0</td>
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<td>0</td>
<td>-33,825</td>
</tr>
<tr>
<td>RETAINED EARNINGS</td>
<td>-124,929</td>
<td>-200,641</td>
<td>673,446</td>
<td>347,476</td>
</tr>
</tbody>
</table>

Source: DANPORT

2.2.1. Some identified causes of KSSL Poor financial performance

Some of the causes of poor financial performance of the shipping division may include the following:

- Lack of competitiveness of shipping as the port is subsidising its losses. In fact, the public did not realise the fact that they are the ones who bear the cost through tariff rates and tax for Betio port dredging etc.
- Poor cost control. A number of consultants like DANPORT, JICA and ESCAP have repeatedly pointed out the same problem but it seems that action is painstakingly slow.
- Tariff rates are very low because of lack of consideration of port maintenance and upgrading costs. Tariff rates are not differentiated due to lack of added-value port businesses.
2.3. Betio Port Performance Indicators

There is no available port performance indicators (Francou, 1999) showing berth output, ship output and most important port equipment performance statistics showing the equipment utilisation, equipment availability, down-time or immobilisation time, replacement strategy etc. The only available port performance indicators is based on the DANPORT (1991, 9.18-9.21) estimates as follows:

- Output indicator: Gang output for break bulk is 12 tons/gang/hr for loading and discharging. For container cargoes is 5 containers/hr for loading and 4 containers per hour for discharging. About 12 men per gang per shift and 1-3 gangs per ship.

- Indicators of service: Ship turn-around time of 2 to 3 days to load FCLs and empties.

- Average dwelling time of containers in the port storage is 45 days. To reduce the dwelling time the following can be considered: reduce administrative and documentation procedures, set punitive storage tariff, reduce acceptance period and move cargoes to alternative areas such as in-land container depots.

- 5 days free storage period: The charges started after Custom’s clearance is done. However, shippers are using the port as a free-storage warehouse by delaying the Customs clearance. That means, hardly any charges paid by shippers to the port as the Customs clearance is subject to the shipper’s fulfilment of all customs formalities after which storage charges can be levied. Usually the delay is one basic document: original copy of the invoice to be presented by the shipper to the Customs. This is another bottleneck that needs to be addressed by KPA on its establishment, see appendix 15 where the storage operation forms an integral part of any berth operation. A realistic free storage period and tariff should be reviewed and considered by KPA.
ESCAP proposed the following to be taken into consideration when assessing the cost effectiveness and efficiency and organisational structure of KPA:

- Most of the waiting time is due to rain, vessels awaiting inward clearance, and lack of night arrival and departures
- Copra carriers have the highest average total time in port per trip. Two copra ship calls in 1994 took up some 21% of the total handling time of 45 ship calls. And 3 copra ship calls in 1995 took up 35% of total handling times of 44 ship calls
- Cumulative total ship-call-days is not more than 4 months, per year which includes say one month cumulative waiting time and
- Possible solutions: ship time in port can be substantially reduced: I) If all navigational aids were operational thus allowing night navigation and II) If new port facilities were available for quay side berthing of the larger vessels, thus avoiding or minimising lighterage operations.
2.4. CONCLUSION:

Betio port can be considered as an import type of port due to the country’s huge trade deficit estimated in 1996 at A$41,766,000. KSSL share of the foreign cargo is 30% whereas its share of the domestic market is 70%. The decreasing number of calls from overseas ships at an annual average rate of 34% should be seriously considered by KPA. These trends show that it is better for KSSL to concentrate on the domestic market. The decreasing number of overseas ship calls will adversely affect the operation of KPA. The more shipping calls to Betio Port the more revenue KPA can generate and thus stimulating economic growth through value-added port activities that are hardly seen as yet.

For the foreign market, co-operation with interested foreign shipping companies such as forming an alliance, a merger, outsourcing of shipping management consultants, partnership through joint ventures, slot-sharing as currently practised in the developed countries should be considered to improve the financial position of KSSL without cross-subsidisation.

Thus based on the above findings, there is indeed an urgent need for separation of a Government owned shipping company (KSSL) from the envisaged port authority to improve the performance of both entities. Separation of KSSL from the Port authority is a better remedy to motivate both entities to operate on a competitive commercial basis.

The financial problems, lack of adequate statistical data such as poor record for port performance indicators should be seriously considered by KPA if it want to operate successfully as a commercial entity.
CHAPTER 3: EXAMINATION OF BETIO PORT ORGANISATIONAL DEVELOPMENT CONSTRAINTS

INTRODUCTION

The aim of chapter three is to examine the organisational constraints facing Betio port. A discussion will be based on the barriers to organisational changes and some ways to overcome them. It shall discuss also the important functions of ports as one of the ways of overcoming organisational constraints of Betio Port. Moreover, some discussion of the impact of separating the port from KSSL will be made. Lastly, the conclusion at the end of this chapter 3 will summarise the main points the author wishes the reader to understand and appreciate.

3.1. Barriers to adoption of the Proposed Organisational Changes

The following types of barriers to adoption will be discussed:
3.1.1. Institutional challenges
3.1.2. Vickery and Wurzburg of OECD proposed barriers to adoption

3.1.1. Institutional challenges:

- Port autonomy: This is a major challenge as KSSL is a government owned company subjected to policy directions from the parent ministry. Port autonomy in setting tariffs to reflect true market conditions cannot be realised until the port is on its own together with legal authority for the port to operate on a fully commercial autonomous port.
- Port objectives: The port objectives should be commercially oriented. However, this is not realised as yet as KSSL objectives are paramount.
• Investment control: The port profit should not be used to cross-subsidise a shipping company. The priority for the profit is the port’s own development needs such as continuous expansion of the port to attract and create new business opportunities. For instance attracting foreign investors; foreign shipping companies; creation of value added port industries; establishment of a port training school for port workers at the lower level and development of outer-island port for fast and reliable sea transportation. In fact, enormous economic prosperity that the country will realise once the separation is effective. However, the author can only say at this stage that all depends on the policy makers to take every step for separation. The longer the delay in implementing the separation of the port from the public shipping company the longer it will take to reap the benefits of an efficient and effective ports to the shareholder, port clients and the economy as a whole.

• Procurement regulations: For an effective port, procurement policies and procedures should be in place to ensure cost efficiency and effectiveness in procurement of equipment and plants are achieved.

• Employment controls: The Public Service Office should be involved in the recruitment of staff at the launching stage of KPA. Thereafter, there should be minimum interference of Public Service Office if KPA were to recruit on a fair competitive recruitment process.

3.1.2. Vickery and Wurzburg of OECD\textsuperscript{1} proposed barriers to changes

According to Vickery and Wurzburg of OECD, they identified the following barriers to adoption of new proposed organisational changes:

• Managerial (management sees no need, has no strategy and does not have the necessary skills to adopt)

• Human resource related (lack of management skills and inability to move towards multi-skilled work system)
However, the major obstacles to adoption of new forms of organisation are largely seen, as “internal” such as management conservatism culture and lack of strategic orientation are the major causes for non-adoption. Resistance to changes to reorganisation is due to existing work practices and organisational cultures that take time to overcome. The main purpose of separating the port and shipping functions of KSSL is to enhance the efficiency and effectiveness of both entities.

Despite the enactment of Kiribati Ports Authority Act 1990 setting up KPA to be responsible for providing port services, it has not been implemented till now due to, inter-alia shortage of qualified and experienced senior staff in port management. Since 1990 till now, KSSL has been delegated the responsibility of carrying out dual functions providing shipping services and at the same time maintaining port operations.

The initial plan for a joint administration of KPA and KSSL was that both entities would share the risks and benefits so as to achieve financial self-reliance. Such objective is realised through cross-subsidization of KSSL from revenues generated from the port. However, this cross-subsidisation resulted in insufficient attention to port development. The port was hardly developed and even upgraded due to lack of funds to carry out periodic dredging maintenance and port maintenance and development. KSSL and KPA have not been improving physically and financially as proven from their poor financial performance and heavy reliance on grant-aid for major capital expenditures. In fact, both have had been faced with a lot of financial crisis which, if it had not been for government subsidy and other assistance, KSSL could have been liquidated.

Maintaining the operation of KSSL is of course a sensitive political issue which could also explain why government find it difficult to separate KSSL and KPA.

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1 OECD is the Organisation for Economic Co-operation and Development
immediately without creating adverse political repercussions. As mentioned in chapter 1, the islands are widely scattered as far as 177 nautical miles over a wide expanse of EEZ of over 3.4 million square Kilometres. KSSL is the only government owned shipping line which provides sea transportation to all islands in the country even to non-viable locations. These are some of the practical concerns and difficulties facing the government of the day in effecting immediate separation of KPA from KSSL.

Despite the inefficiency and ineffectiveness observed with having a joint administration, most of the senior policy makers are rather indifferent to the idea of separation. This indifference stems from inadequate understanding of what real benefits are there if the port were to be separated from KSSL. It is the author’s believe that some if not most of these misunderstandings should hopefully be cleared if the reader reads all of the chapters of this dissertation.

Not until very recently when a number of consultant reports reviewed the tragic outcome of the joint administration of KSSL and KPA that some efforts are now being made to separate the two bodies. Pressure is mounting from Tetra Consulting Company from Japan on behalf of JICA, a consultant for the present on-going construction of the new container terminal, and other consultant’s reports for separation of KPA and KSSL.

Insufficient container yard and poor maintenance dredging of Betio Port caused congestion and a decline in foreign ship calls and poor port performance. Based on these problems, a number of studies were requested by the parent ministry, Ministry of Information, Communications and Transport. Three consultant companies conducted the study on Betio port improvement. The Danish Port Company known as DANPORT was the first consulting firm who did a general overview review of inter-island transportation. TETRA Company under the sponsorship of the Japan International Co-operation Agency commonly known
as JICA was the second consultant firm who followed up DANPORT report. The Economic and Social Commission for Asia and the Pacific, better known as ESCAP conducted the third recent study related to the previous two consultants. The remarkable outcome of the above studies is the construction of the new container terminal funded by Japan. The project is expected to be completed sometimes at the end of 1999 or early 2000 during which time the KPA is expected to be up and running.

In reality, especially in my country, organisational restructuring is usually not given due consideration due to the above barriers. The main barrier that is worth reiterating is the resistance to change due to inadequate understanding and appreciation of the benefits of having a separate Port Authority from a public shipping company. I just wish that those concerned with the establishment of the envisaged Port Authority understood the enormous benefits of having a separate Port Authority. The subsequent sections and chapter will identify some of these benefits to the shareholder, port clients and to KPA itself and the economy of the country as a whole.

The current trend we see today of the formation of shipping alliances and consortium together with new mergers such as P&O NedLloyd are some of the ways of strengthening and streamlining of the organisational structure to achieve their mission in a most cost-effective and cost-efficient manner. Profit maximisation is one of the common objectives of organisations that can be achieved through organisational restructuring such as slimming down redundant and non-added value jobs as a cost-saving measure. In fact based on MASSOP research, it was found that the trend in the maritime organisational structures are getting flatter and flatter as middle-line management are continuously reduced. Measures such as multifunctional training are typical examples of organisational efforts to reduce the number of unproductive jobs or employees and increase added-value jobs.
Remark: The above trend of shipping companies forming shipping alliance and shipping consortium with former rivalries poses a threat to small ports in developing countries like Kiribati. With the huge market coverage and huge traffic commanded by these foreign shipping alliances and consortiums, they can easily dictate the terms of port tariffs and level of service as they have the bargaining power. What it means is that the current decreasing calls of foreign ships to Betio Port can continue declining if these shipping consortiums decided to stop calling or divert to neighbouring ports which are more efficient and effective. Thus Betio port should improve the quality of port service and offer a competitive port tariff and also be willing to enter into negotiations and co-operations at a regional and international level. For instance, Kiribati should consider becoming one of IMO’s members like Marshall islands, its immediate neighbouring country, or else KPA may find it very hard to compete at the regional and international level. Co-operation is now one of the keys to remain competitive.

3.2. Some recommendations to overcoming barriers to adoption of organisational changes:
   3.2.1. Important organisational cultures that needs to be fostered
   3.2.2. Attributes for excellence
   3.2.3. Clear and simple Ports Mission statement
   3.2.4. Other basic concepts of Port objectives and aims
   3.2.5. Concepts of Port functions

3.2.1. Important organisational cultures that needs to be fostered
The following organisational cultures can help overcome some of the foregoing organisational barriers:
- A belief in being the best
- A belief in the importance of people as individuals
- A willingness to support failures/innovators
- A belief in informality as a means of enhancing communication
• A belief in the importance of economic growth and profits

3.2.2. Attributes for excellence
The following are attributes of excellent organisations that KPA may learn from:
• A bias for action
• Close to the customer
• Autonomy and entrepreneurship
• Productivity through people
• Hands-on, value driven
• Stick to the knitting or niche
• Simple form, lean staff: simple and flatter organisational structures
• Simultaneous loos-tight properties

Remarks: The above items 2.1 and 2.2 are based on the outcome of the research of successful companies in the United States. It is important for KPA to consider fostering the above cultures and attributes in order to remain competitive.

3.2.3. Clear and simple Mission statement

KPA being a public port must consider government policy in formulating its objectives. A mission statement is usually set by the shareholder (Ma, 1999). To reiterate, the main purpose of separating the port and shipping functions of KSSL is to enhance the efficiency and effectiveness of both entities. A remarkable effort of ESCAP can be seen in the formulation of the KPA mission statement as follows: “KPA will play a major role in the social and economic development of Kiribati by providing efficient and effective port services.”

The above mission statement is not adopted as yet as the KPA is not physically separated yet from KSSL.
Based on Philip Kotler’s definition, a mission statement states the purpose of the company. The company’s mission statement should provide a vision and a direction for the company over a short term and long term vision.

The mission statement of any company is very important as it determines where the company is heading to now and into the future. In fact, knowing what to manage is of paramount importance for managers and executives. Most chief executives and general managers should devote their time and effort in managing the company’s mission statement (Davidson, 1995). That is, ensuring that the mission statement of the company is achieved. As illustrated in the subsequent section 2.5, the mission statement is influenced by external and internal functions of the port.

**Remarks:** KPA Board of Directors can adopt the Mission statement proposed by ESCAP provided the Honourable Minister approves it. Otherwise, KPA management can determine KPA’s mission statement through conducting a strategic port planning exercise.

### 3.2.4. Other basic concepts of Port objectives and aims

Based on Professor Shuo Ma lecture on strategic planning, the port objectives and aims can also be derived from conducting a strategic port planning exercise. Port objective and aims are derived from the outcome of the SWOT (Strength, weakness, opportunities and threat) analysis.
What are ports for? In order to answer this question, firstly it is necessary to identify the organisations or persons concerned. A distinction must be made between several groups of persons:

3.2.4.1. Port owners or shareholders
3.2.4.2. Port Operators
3.2.4.3. Port Users
3.2.4.4. Social purposes of ports
3.2.4.5. Port community

3.2.4.1. Port Owners or shareholders

Port owners are predominantly government or state as represented by the Port Authority. What are the purposes for which the government wishes the port to serve? There are two approaches in answering this question, one is a microeconomic approach and the other is a macroeconomic approach.

In the macroeconomic or national approach, the government authority considers the purpose or aim of the country’s port is to make the greatest possible contribution to the country’s development. In economic terms, the purpose of the port is to secure the lowest possible port transit cost for goods transiting through it. Ports thus play an integral role not only for the country’s foreign trade but also for its entire economy and the standard of living of its people. Ensuring the lowest possible port transit cost is an important means of reducing the prices paid by the consumers and also a means of enhancing the competitiveness of the country. That is the port can stimulate development of industrial activities and other added value activities. Competition nowadays is based on a combination of quality and price.

Other basic purposes of the ports expected by government may include the following: generation of employment and foreign exchange earnings. In a
macroeconomic approach, the government intervenes in decisions concerning rehabilitation and development of the ports, which means that government is the initiator of decisions involved with the development policies of the port.

In many developing countries, like Kiribati, the purpose of the port should be to play a key role in the national development reflected in ESCAP’s proposed mission statement. However, the basic purpose of the port which is to secure the lowest possible port transit cost can be distorted by a number of constraints such as Government policy of requiring the port to contribute directly to the financing of the shipping company, typical case in Kiribati.

In the microeconomic or local approach, the government considers that the best way to achieve the lowest possible port transit cost is to refrain from interfering with the port’s operations and management so no directives or controls and subsidies are given from government. That is simply treating the port as a private enterprise encouraging competition on a level playing field. In microeconomic approach, the Government’s role is to ensure that no monopoly situation arises and that the practices are within the government’s policies and regulations.

**Remarks:** In applying the above concept to KPA situation, the macroeconomic approach is applicable to KPA as it is 100% owned by the government. Thus, KPA purpose should be to contribute to the country’s social and economic development by ensuring the lowest port transit cost and also differentiation of the port services. The microeconomic approach is important for consideration of future port reforms.

3.2.4.2. **Port Operators**

The port operators, as applicable in the landlord and toll ports, include cargo handling and stevedoring firms who do not own port installations. They are often
private firms and sometimes wholly or partly publicly owned. The main purpose of these operators is to cover their cost and make a profit. In France, Belgium and Netherlands they adopted a mixed system where the purpose of the Port Authority pursues the macroeconomic approach whereas the private port operators in the port pursue microeconomic approach.

The problem with public-sector cargo handlers, as in a service or operating type of port especially the developing countries, where no competition exists; the following may be experienced: overstaffing, low efficiency and considerable disorganisation causing losses, delays and damages to goods, the same case as Betio Port.

Remarks: In the case of KPA, it will start off, as it is, as a service port in accordance with KPA Act 1990 provisions. The message is for KPA to make advance preparation and consideration for future port reforms. The future port reforms could be in the areas of creating conducive port commercial governance such as encouraging port autonomy in contracting out cargo handling operations and leasing of the port land as adopted in the tool port and landlord type of port organisation. Further discussions will be made in chapter 4.

3.2.4.3. Port Users

Who are port users? Direct port users are ship-owners and shippers whereas the indirect port users can be divided into intermediate users and final users. The intermediate port users are forwarding agents whereas the final port users are the country’s consumers and producers. Thus the final consumers are the ones who really pay for the port services. This explains the need for a competitive port in terms of both quality of service and price.
Port users are concerned with 3 criterions:

1. Cost of the operation
2. Time it takes
3. Risks involved

The final port users seek from the port a service and a good of the best possible quality at the lowest price (Price and Quality basis of competition). However, the port that is expensive for the users is not necessarily the port with the highest tariffs but rather a port where the services are poor because of delays, inefficiency and damage. The aim of shipowners, shippers, forwarding agents and final port users are generally the same which is securing the lowest possible overall port transit cost.

Remarks: Quality of Betio port service to overseas shipping lines is not up to the standard. Dwelling times very high, slow turn-around time due to lack of night pilotage and many internal constraints and challenges that will be discussed in the subsequent sections and chapters. Currently, there is no shipper’s council except the Kiribati Chamber of Commerce that more or less plays the same role. The freight-forwarding professionals are very limited in number. There is a need for further studies to see where KPA can assume some of the freight forwarding activities to become a truly logistic platform for its users. The port users especially consumers should be considered in every port pricing policies. KPA should aim to reduce the cost of goods through offering not only a competitive low tariff but also differentiation of its service especially value-added activities and logistic services for port users. Lastly, a long term co-operation and relationship should be made with the port users, as they are the source of port revenues for port development.
3.2.4.4. Social purposes of ports

The port being a transit point most transportation chain requires considerable employment requiring personnel with different kinds of training and skills. The passage of traffic through Betio port directly creates a lot of activities within the port site itself such as:

- Construction and maintenance of port infrastructure and port equipment: Creates employment for enterprises in the civil engineering, mechanical engineering, electrical and electronics fields etc.
- Reception of ships can create a lot of employment and business opportunities such as sea and inshore pilotage and towage companies.
- Transhipment of goods both inward and outward forwarding can also creates many employment and business opportunities for cargo handling, transport and freight forwarding companies etc.
- Supplying, fuelling and repair of ships provide work for local enterprises; Betio Shipyards Ltd and other private boat builders and repairs.
- Port administration creates employment to the port community and those concerned with foreign trade;
- Warehousing, packaging, bulk-break, distribution, repackaging and even processing of products and cargoes which adds considerably to product value are important sources of employment and business opportunities to public and private enterprises.

The social purpose of ports that is safety is discussed further under the internal functions of the port, so we leave it for here now.

Remarks: It is a pity that the above employment and business opportunities arising from having a separate port authority cannot be realised till the separation is implemented. With the expansion and construction of the new container terminal,
and after separation has taken place, KPA’s priority should be in training of its staff in all areas of operation and safety procedures.

3.2.4.5. Port community

The role of the port was traditionally a transit point at sea and lands interface. However, with the development of international trade and modern transport methods, the port area concept has evolved where the port is not only a transit point but also a logistic platform. For instance, the traditional quay activity, which usually has two zones of activities, mainly cargo transfer operations and transit shed has now extended to the third zone. The third zone includes what was mentioned previously: warehousing, repackaging, assembly, distribution etc. The third zone is not realised yet in Kiribati due to the many challenges and constraints, to be mentioned in the subsequent sections, facing Betio Port.

The principal purpose or aim of these port areas and of the local communities is promotion of the port itself, securing goods traffic and providing new services. In economic terms this purpose or aim may be that the port community aims to ensure that goods move through the port at the lowest possible cost and at the same time to give the goods the greatest possible added value while they are in the port area.

The above purpose imposes certain requirements:

a) The port community must be united, it must be motivated and it must be guided. However, port impact analysis should be conducted first to identify who makes up this port community, how many bodies and the total number of employment and business opportunities and other impact on the country’s economy.

b) The interest of the port area must take precedence over the interests of the port community. That means that the first task is to gain market share and only then can there be competition in order to divide the benefits of expansion.
c) Administrative services including customs and the port authority must facilitate and encourage these changes without interfering in the commercial operations.

Over the long term and medium term, irrespective of the systems adopted, there may be a convergence of the various purposes and aims if, underlying them, there is a desire to further the general national interest of the country in which the port is situated. The general interest of the port of offering quality service and transit-cost ratio must be quantifiable. Most of these guidelines are not yet considered by Betio port so it is hard to quantify them.

Monopolies should be controlled or not allowed so as to achieve a competitive market-based port pricing policies.

Despite the existence of short-term differences of aims between the Government and Port Authority, the operators, port employees, port community, port users, in the medium and long term; some convergence and a common aim emerges, namely “Achievement of the lowest possible overall transit cost and the highest possible added value.”

The economic and social progress of the port and of its region is dependent on the achievement of this aim. Whatever the approach adopted (Microeconomic or macroeconomic) this aim should determine the organisation and management of the country’s port system, both at the national level and at the individual port areas.

**Remarks:** The above items are the very basic important guidelines and recommendations for KPA to consider them where necessary.

### 3.2.5. Concepts of Port functions

The port functions are of two types:
3.2.5.1 Internal port functions
3.2.5.2 External port functions

In appendices 17 and 18, they show important types of port activities and services as part and parcel of the ports functions.

3.2.5.1. Internal Port functions

Internal port functions include the following factors:

3.2.5.1.1. Economic,
3.2.5.1.2. Financial,
3.2.5.1.3. Social,
3.2.5.1.4. Technological,
3.2.5.1.5. Commercial and
3.2.5.1.6. Development functions of the port.

3.2.5.1.1. Economic Function of the port

UNCTAD summarised it clearly as "...no developing country that has recorded substantial economic growth without a sustained increase in its foreign trade, based on efficient ports". Thus, ports play a critical role in the development of foreign trade. Foreign trade and economic growth of a country are dependent on the efficiency of the port. Port activity is no longer confined to the harbour areas but now plays a major role in the transportation chain. Diversification of port services into storage, warehousing and distribution activities have been observed. For instance, difference of types of service for the three generations of ports: First generation ports (prior 1950s). The first generation ports consist of sea approaches, transfer of goods, temporary storage and delivery. The second-generation ports, it includes first generation ports plus industrial and commercial activities, which generate added value goods. The port is a handling and service
centre. Third generation (since 1980s), it includes first and second generation plus structuring of port communities, plus strengthening links between town and port and between port-users, plus extension of the range of services offered like distribution beyond the port boundary, plus an integrated system of data collection and processing (infostructure). The port has become a logistics platform for trade.

Port users are concerned with 3 criterions:
1. Cost of the operation
2. Time it takes
3. Risks involved

Port activities must be organised efficiently and harmoniously so as to ensure high productivity. This requires efficient organisation and efficient port system which is capable of monitoring and controlling the economic, technical, social and legal and even commercial risks faced by port users.

Economic and physical functions are the same activity. Physical function is measured in physical terms and units and economic functions are measured in economic or financial terms and units. In economic approach the criteria and units used are cost, time, earnings and productivity. In physical approach the terms and units used include - Number of ships calling, tonnage, volume and weight of cargo, number of containers etc.

**Remarks:** Considering the low volume of traffic to Betio port, KPA can be classified as a first generation port. The social and economic functions of the port in Kiribati are not realised yet. It is hoped that the commitment of the present government to separate the port from KSSL and establish KPA will fulfil the economic and social function the port should serve. For instance, creation of new companies like port operators and port investors; establishment of KPA training
institute for all port workers with the assistance of UNCTAD\textsuperscript{2} and ILO, new business opportunities to be generated as the port diversify into other value added activities and development of outer-islands ports.

3.2.5.1.2. Financial function of the port

The aim is to ensure that the principal monetary and financial flows are balance not only to permit development of the port, but also to ensure maintenance of the existing port facilities. The aim should always be that the revenue is sufficient for the port’s development as a matter of priority.

3.2.5.1.3. Social function of the port

Port policy should ensure safety of persons and goods is now an important concern given the advancing technology in port equipment and facilities. Port state control under STCW 95, MARPOL 74/78 and SOLAS conventions are some of the social functions that the port is expected to uphold. Thus, social function consists of ensuring satisfactory health and safety conditions for port workers and general social welfare of employees including safe and cleaner port environment.

3.2.5.1.4. Technological function of the port

Port organisation and management cannot be discussed without considering the policy of the service providers, whose activities are vital to the port existence. The trend now is the ever increasing in size of ships, increasing of containerised traffic, requirements for fast collection, processing and circulation of data through EDI and other computerised information system is steadily increasing. Hopefully, KPA should consider this important factor as it affects its efficiency and effectiveness.

\textsuperscript{2} Based on the author’s informal discussion with UNCTAD experts regarding PDP
3.2.5.1.5. Commercial function of the Port

This is the driving force in ports that are faced with strong competition and are very keen to development. Commercial function is the only function that is oriented towards the port users. The ultimate purpose of a commercial function is to ensure port services of high quality that will satisfy the port users. The commercial function should be centred on the following objectives:

- Satisfaction of existing port customers
- Informing shipowners and shipping agents about port facilities, services and capacity. This is a static approach.
- Seeking additional traffic by contacting potential customers and aiming to convince them to export or import goods to make use of the port for that purpose. This is a dynamic approach that many successful ports have adopted and thus substantially strengthening their marketing services.

Remark: Quality assurance such as ISO standards are now widely incorporated and adopted by most competitive port organisations in pursuance of their commercial function. KPA should also consider establishing its quality assurance management system to achieve its commercial function.

3.2.5.1.6. Development function of the port

The highest priority must be assigned to the port’s development function. The environment in which the port operates in is subject to technological, economic and social environment. Over time there are changes in commercial practices, changes in conditions and means of transport, handling and storage and changes in administrative and financial arrangements. Increasingly strong competition has developed within or outside the port. There is scarcely any port in which competition is absent. Competition is always a driving force that stimulates trade
and economic development. The only safeguard is to be ever on the watch. The development function must proceed in several phases such as:

(a) Information and feedback: The organisation must know any changes occurring around it that may facilitate or hamper achievement of the port’s activities.

(b) Research, planning and forecasting: The organisation must process and analyse any information and to use it for its own advantage such using it for its strategic port planning exercise.

(c) Self-adjustment and co-ordination: Self-adjustments in manpower and organisational restructuring are necessary to implement new proposals. Self-adjustment capacity of the organisation is one of the best indicators of efficient port organisation and of the personal capacity of the port’s managers to carry out the new development. Self-adjustment means the ability to implement changes but not resistant to changes when the environment in which it operates demands substantial changes to cope with new developments etc. Today, a port’s efficiency depends on the port organisation’s ability to ensure co-ordination of the various interests involved both within and outside the organisation.

3.2.5.2. External functions of the port:

Functions performed directly or provided and offered by the port authority for the port’s users or customers better known as operational and demonstrative functions see appendix 14 for further details. External functions of a port can be divided into 3 main groups:

a) Port functions for ships
b) Port functions at the sea-land interface
c) Port functions ashore

The port functions for ships are the normal services provided to ships upon their arrival at the port such as: pilotage, towing, inshore pilotage etc. To facilitate fast turn-around these port functions for ships require an introduction of computerised
systems such as introduction of information technology and electronic data interchange. For KPA, fax and telex machines including VHF radios can do the same job at present. But for future development, KPA should be proactive to development of its IT and EDI system to attract more shipping lines calling to the country.

The second port function takes place at the port-land interface. It involves cargo-handling operation from the hold of the ship to the point of exit from the port. These operations required development and application of integrated operational systems for flows of goods, flows of equipment and information to achieve expected efficiency, speed, accuracy and quality of service while maintaining safety standards (Port performance indicators).

The third external port functions are those performed ashore and in the port hinterland. These third external port functions involve value-added activities at the required efficiency, quality of service and low cost services. These services include storage, distribution, processing, labelling, packing etc. The use of IT and EDI in the collection, processing and dissemination of information concerning the goods and their physical, commercial, financial, customs and other particulars are the primary services of this third function. To reiterate, the use of EDI and IT are the determining critical success factors for ashore port functions.

3.3. Consequences for Port organisation and management

Ports cannot ignore the above functions, as they are very important determinants and essential ingredients for designing a sound Port organisation and management structure. The ports need to modernise their organisation and management to be kept abreast of the current competitive trend of the Maritime Industry such as ports becoming a logistics platform for just-in-time demand and delivery system. Ports are an essential link in this system and their organisation and management
must be commensurate with that of the other parties mentioned above if the ports concerned are not going to lose traffic through lack of competition. Most of the foregoing and subsequent problems and challenges are basically due to non-performance of what a port function should be doing.

3.4. **Impact of removing port functions**

3.4.1. Impact to be felt by KSSL

3.4.2. Impact on the economy

3.4.1. Impact to be felt by KSSL

Based on ESCAP’s analysis, it identifies the following impacts that will be felt by KSSL following the removal of port function:

- Cost reduction in employment cost due to reduced number of staff
- KSSL will be relying on freight revenue, charter fees, agency commission, freight-forwarding.
- Competitive cost control and reassessment of matching of revenue with costs
- Diversified sources of revenues can be explored such as custom clearance services, road transport haulage services and courier services
- Level playing field for competition with the private local shipping owners which is very important to stimulate the country’s stagnant economy
- Exploring ways of saving costs such as through forming of shipping alliance and joint ventures with local or foreign shipping companies.

3.4.2. Impact on the economy

The government’s move to establish a port authority is an historic and remarkable effort to stimulate the country’s stagnant economy. To reiterate what was mentioned
under the economic function of the port, the following economic impacts are worth emphasising (Francou, 1999):

- Stimulate economic development: Based on the outcome of my preliminary Port Economics impact analysis for Betio port, there are about 2,795 people who can directly and indirectly be employed from the port and related activities, see appendix 24. Contribution of the Port to GDP is 3%.
- Creation of new companies and business opportunities such as: port operators, port investors in value adding businesses,
- Establishment of a port training centres for middle and lower level port workers. This is in line with UNCTAD and ILO aims of delivering port training packages to developing ports in developing countries.
- Development of outer-island ports to facilitate fast and reliable shipping calls to outer islands (NEPO, 1996a).

3.5. CONCLUSION:

Trade is dependent on the efficiency and effectiveness of the port. One of the secrets of developed countries such as the G7 industrialised developed nations (Francou, 1998) is due to their long-historical development of the ports’ functions. The ports in these countries have been the major source of revenue to government up until now. I do hope the developing countries learned the lessons from these economically strong countries.

Before designing an organisational structure for the port, it is very important that all of the foregoing factors are taken into consideration namely:

1. What is the Port Authority Mission Statement?
2. What is/are its objectives?
3. What are its functions-statutory and corporate functions?
4. What are the identified strategies to achieve the above Mission statement, objective and functions? The strategy can be derived through conducting a
Strategic Port Planning exercise that require top management commitment and initiative. Barriers to organisational changes, impacts of the separation of Shipping from a Port Authority should all be taken into consideration when formulating strategies for the Port.

5. The organisational structure should always follow the identified strategies not vice versa. This is one of the contemporary methodologies, which is more successful than the traditional method where the strategy follows the structure.

The Strategic Port Planning exercise is the responsibility of the top management. It is up to the top management to decide how a Strategic Port Planning Exercise is done such as forming a Strategic Port Planning Committee or Task force responsible for it. To reiterate, a Strategic Port Planning exercise requires commitment from the top.

Co-operation at the regional and international level is now one of the keys to being competitive in a very volatile maritime markets. I strongly recommend Government to consider acceding to IMO’s conventions such as SOLAS, MARPOL and to process its membership to IMO to become one of IMO’s member countries, like the Marshall Islands, our immediate neighbouring country. This is one of the ways KPA can use to remain competitive in the maritime industry. Lastly, quality assurance management system and the use of IT and EDI should be introduced as early as possible to attract more foreign shipping calls to the country and to make port operations more efficient and effective.

Please refer to section 3.2.4.4. and 3.2.5.1.1. to see the benefits of having a separate and efficient and effective Port Authority. More than 2,795 direct and indirect employment can be generated from the port once separation is implemented.

Establishment of KPA Training Institute not only for Betio Port workers but for our neighbouring countries like Tuvalu and Nauru is one of the grand opportunities that will arise from the separation.
CHAPTER 4: EVALUATION OF KSSL EXISTING ORGANISATIONAL STRUCTURE

INTRODUCTION

The aim of chapter 4 is to evaluate the existing Kiribati Shipping Services Ltd (KSSL) organisational structure. The port division under KSSL, see appendices 1, 3 and 4 for details, will be divorced and established as the first Kiribati Port Authority (KPA) in accordance with KPA Act 1990. It will also look at where KSSL fit in under the Government arm. It will also analyse KSSL structure to identify posts within KSSL that are performing port functions and related activities, see appendix 4 for details. Having identified these posts, the evaluation exercise shall commence with selected evaluation criteria. Because the topic covers what the organisational structure of KPA should be in the millennium, items 4 and 5 will discuss some principles of modern organisation. Finally, a conclusion section at the end of this chapter 4 will summarise the main points the author wants the reader to understand and appreciate.

4.1. Existing Organisational Structure of parent Ministry of KSSL.

The Kiribati Port Authority is under the auspicious of the Ministry of Information, Communications and Transport, abbreviated as MICT, as shown in figure 1 below and in appendix 1. MICT’s main role is a regulatory body in maritime laws and regulations through its Marine Division (see appendix 2 for further details) as highlighted in the chart below.
The Honourable Minister of MICT is a shareholder of Companies under the auspicious of the ministry such as Kiribati Shipping Services Ltd (KSSL) and the envisaged KPA on behalf of the Kiribati government. The power of appointment and nomination to the company’s board of directors is vested in the Honourable Minister of MICT. Further discussion on issues relating to KPA board of directors will be continued in chapter 6. For now, let us analyse the existing organisational structure of KSSL.

4.2. Analysis of KSSL organisational structure.

The analysis of KSSL existing organisational structure will be based on the following:

- Identification of departments and units within the existing organisational structure of KSSL that are performing port and related port functions.
- Basis upon which JICA and ESCAP designed their proposed organisational structure.

The selected departments and units of KSSL organisational structure relevant for analysis is shown below, please refer to appendix 3 for details of the whole organisational structure.
Based on the above structure, there are about 180 directly employed people and about 14 levels counting from the Board of Directors downwards. The second level is the management level, which includes the General Manager and the six divisional heads as elaborated in figure 4.3 below:

Now, in analysing the above organisational structure, figure 4.4 below shows the posts within KSSL that are performing all port related functions as follows:
In total, there are 68 staff who are directly and indirectly involved in port operations. The above illustration shows that stevedoring function, which is an important component of the Ports division, is not placed under the Ports division but under Ships Agency division. Port operations should follow a unified command principle which means that stevedoring operation should rightly be placed under the ports division and not under the Agency division. This could be one of the defectives that perhaps KSSL has some good arguments for which the author is not aware of at this stage.

4.3. Evaluation of KSSL organisational structure

The following evaluation criteria will be adopted

4.3.1. Unity of command principle

4.3.1.1. Baudelaires undesirable pattern

4.3.1.2. Port types and classifications

The unity of command principle means that the command and control should be unified, that is it should be under one division or personnel performing the same or related function. The stevedoring operation should be rightly placed under the command and control of the Ports’ Manager and not the Agency Manager. The port operations’ staff should know who is in charge of them, and according to this principle, there should be only one supervisor for each major function in the
hierarchy. That is someone who has the authority, command and control. The unity of command principle requires shared commitment of those in charge of a division or unit.

4.3.1.1. Baudelaire’s undesirable patterns of port organisations

According to Baudelaire, he identified the following undesirable patterns of port organisation that demonstrates lack of unity of command principle:

4.3.1.1.1. A shipping company running the port

A shipping company should not run a port as practised in the Soviet Union. Unfortunately, this is exactly what is practised in Kiribati. KSSL organisational structure has been set up mainly to look after the shipping service. However, due to lack of qualified and experienced locals in port management compounded with political interference, KSSL was charged with dual function: To look after its own shipping operation as a public shipping company and secondly charged with port operations.

The emergence of private local shipping companies creates unfair competition between KSSL (government-owned) and the local shipping owners. To name a few of the direct and indirect government subsidy to KSSL include acquisition of capital assets such as vessels, mobile cranes etc. When it comes to vessel acquisition, the local shipping owners, as one of major taxpayers, have to pay it out from their own pocket. However, KSSL is dependent on government for acquisition of its new vessels or replacement of its old vessels through grant aid.
such as the acquisition of one of its vessels MV Matangare. Furthermore, KSSL has had never pay a single cent as dividend to the government (shareholder) and it still cannot cope with every sea transport demands. This explains the emergence of the private local shipping companies. KSSL monopoly position is not conducive for free competition for the country’s economic development.

KSSL argued that it is running on a loss because of government directives to voyages to non-viable location where there is no cargo-inducement. Such argument can be considered only an excuse and alibi to disguise the manifold internal management problems the company has been entangled with since inception till now. These problems varies from lack of qualified staff in shipping management as proven from their poor shipping management such as poor asset management, poor cost control, poor motivation, poor training of management staff etc. The above argument can also be disputed if government offers a transparent competitive tender to all shipping companies, KSSL and the privates, to locations where KSSL said to be non-viable locations (NEPO, 1996a). A private shipping company with a profit motive will do everything to control its cost even to locations where KSSL considered non-viable. In fact, KSSL has now started to compete fiercely on locations where the private shipping companies are operating in.

A level playing field of competition is difficult to achieve if policies such as port pricing policy concerning port dues and charges being entirely in the hands of a major competitor and a major public port user i.e. KSSL (NEPO, 1996a,b). Based on JICA and ESCAP findings, they confirmed that the Betio port tariff has been charged at a very low level compared to the neighbouring countries of Honiara, Samoa and Marshall Islands. The low tariff is one of the causes of lack of funds for rehabilitation of the port as KSSL kept charging a low port tariff with lack of attention to the port’s development which resulted in heavy dependence on grant aid.
It is very difficult to identify a transparent basis upon which the existing port tariffs are set. In fact the tariffs are neither cost-based nor market-based. Though it may seem that Betio port has a cost leadership position in terms of its low tariff rates it severely lacks differentiation of service to increase its share of the market. **On the contrary, the low port tariff of Betio Port does not increase the demand for overseas shipping calls but unfortunately reduced the number of shipping calls to the country. The declining ship calls should be amongst the most important cause of concerns of KPA when it is established.** What it means for KPA is to try and recover the lost markets if it want to survive competition from the regional and neighbouring ports.

JICA and ESCAP reports agreed exactly with what Baudelaire identified as undesirable pattern of port organisation. In fact, this is the foundation of JICA and ESCAP proposals for separation of KSSL from the port, as we shall discuss it in some detail in the subsequent sections.

4.3.1.1.2. Exclusive and centralised legal power of nomination for Ports Board Members

Please, dear reader, accept my apology if this section may not sound favourable to you. However, it is important to understand it so as to be able to take actions to mitigate any negative impacts that it may arise due to lack of understanding of some important basic principles of nomination of Ports Board and also applicable to any other boards.

Nomination of members of the board of directors given to the Minister is not advisable as a rule. Historical tradition inherited from the British colonial era in terms of centralising the legal powers of nomination to the Minister still persisted. In Britain, you will be surprised to find that most of its Port and Harbour
Ordinances have been reviewed. Most of UK’s ports have been privatised with the remaining ones having granted a high level of autonomy so that they can operate strictly on a commercial basis. The political interest of the Minister may be concerned with short-term political issues at the expense of long term corporate issues. What it means is that the Minister needs to be correctly advised as to whom he should nominate and under what criteria such as discussed further in chapter 6 item 3.

4.3.1.1.3. Ports under direct control of Customs department

A serious conflict of interest arises between the ports, placed under the direct control of customs department, and the shipping owners or shippers. The port’s aim of fast turn around of vessels contradicts with the red tape bureaucratic custom’s procedures that prefer longer dwelling time of cargo for detail and thorough inspection of goods passing through the port. The red tape bureaucratic customs procedures causing port congestion due to slow turn around time of about 2 to 3 days.

In west and central Africa, the port is under the Railway administration even for countries that are not landlocked. Qualified and experienced port managers are required for port operation but not railway experts. Ghana in 1977 was divorced from the Ghanian Railway Administration and now operating successfully as a port authority with dividend periodically declared to the government.

4.3.1.2. Port types and classifications

The unity of command is also dependent on the different classifications of the various types of ports as follows:

4.3.1.2.1. Type of port organisation
4.3.1.2.2. Location of the port
4.3.1.2.1. Types of port organisation

In this section, I will concentrate on the type of port organisation and the application of unity of command principle together with looking at conditions required adopting any one of the following types of port organisation:

• a service port
• a tool port and
• a landlord port.

In order to properly plan co-ordinate and supervise the different types of high speed and complex flows of containers through the terminal, it is essential for the terminal to be controlled by a single entity responsible for all the activities within the terminal area. Unity of command is the key to effective terminal management (Crook and Ircha, 1999).

To reiterate, Betio port is the name of the port where KSSL is charged to take care of on behalf of KPA. At present, Betio port can be said to be operating in the same manner as a service port. However, there is no clear-cut port classification for Betio port as KPA is not established yet and KSSL is legally a public shipping company. The possible solutions is the consider adopting any one of the above port type organisations.

**Landlord port organisation:**

Unity of command principle is evident from the port authority being the single owner of the port infrastructure only and superstructure is owned and operated by a single terminal operator. Conditions to become a landlord port is as follows:
A. Port traffic and throughput should be large enough say 20 million tons a year like Rotterdam Port. This minimum condition is based on the following considerations: Firstly, there is no monopoly in the port operation. There should be free competition between port operators. Secondly, there should be diversified port added value activities to a large number of port operators to avoid anti-competition practices and monopoly. Thirdly, there should be adequate turnover or profit to finance the superstructure.

B. Available interested investors and shipping companies and port operators willing to provide the required expertise and capital to operate the provided facilities and infrastructures.

C. The political environment should be a liberal one concerned with port efficiency and effectiveness.

Remark: KPA is too young at this stage to become a landlord port due to its limited traffic and some statutory amendments such as the conflicting role of the Port Master as Port State Control officer and at the same time an Executive. See schedule 2 of KPA and the subsequent chapter 5 for further discussion on the same issue.

Tool port organisation:
Unity of command is evident from the port authority being a single owner of both the infrastructure and superstructure except the operation that is leased out to a single port operator usually a private operator. Conditions necessary to becoming a tool port is that the local geography and volume of traffic is physically and economically impossible for any interested individual port operator to invest in the port equipment. Thus, the port invests in both the infrastructure and superstructure. That is the port provides the tools and leased it out to interested port operators while retaining ownership title over the infrastructure and superstructure.
Remark: The tool-port model sounds favourable to KPA in future. However, given the existing lack of qualified and experienced port operators in container terminal operation and effective and efficient maintenance of port facilities, it is better to remain, for the time being, as a service port.

Service port organisation:
Unity of command is evident through a port authority being a single owner and a single operator of both the port infrastructure and superstructure. This is the existing port type organisation of Betio Port. That is, the port provides the infrastructure and superstructure and also an operator. The basic condition for a successful service port is training and education of the port staff in all areas of port operation and management.

Remark: To reiterate, training is needed as a remedy to the problem of lack of locally qualified port staff. Lack of training such as in port and shipping management training can be considered as the core and root cause of manifold problems and challenges facing KSSL. Lack of training and practical exposure in proper shipping and port management caused multiplier effects on KSSL as a whole such as poor port and shipping management, poor productivity, poor statistical information etc. Thus, KPA should learn from the failures of KSSL by establishing its own KPA Training Institute with training programmes provided through UNCTAD, ILO etc.

**TABLE 4.1: Summary of the main Features of the three types of Port organisation**

<table>
<thead>
<tr>
<th></th>
<th>Infrastructure</th>
<th>Superstructure</th>
<th>Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landlord Port</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tool Port</td>
<td>Yes</td>
<td>Yes</td>
<td>NO</td>
</tr>
<tr>
<td>Service Port</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Mancion
The other types of port organisation are the different port administrations such as (Frankel, 1987, 543-545):

- **Central government or National Port Authority:** Centrally controlled under the Ministry of Transport like MICT in the case of KPA. There is no direct user representation in controlling the authority. Budget, investment and tariff require government approval. The port authority is subject to government national political policies. The authority obtains investment fund through government. KPA falls under this classification.

- **Autonomous Port Authorities:** Public accountability, controlled by a board of elected and appointed members, legally independent of government but usually subject to oversight, generally non-profit making, obtains funds through borrowing, public financing (bonds). Again, this is an important port reform in future to enhance the competitiveness of KPA in future.

- **Regional or municipal port authorities:** Controlled by the regional, state or municipal (city or town) government. It should be responsive to regional and local political policies. Port operation in line with regional or local planning. Usually, but not generally, it is a non-profit making body, it usually obtains funds through the port authority or government. Rotterdam municipal port management authority is a typical example of a municipal port authority. Not applicable to KPA.

- **Private port organisation:** It is controlled by the private enterprise, financed by private enterprises, profit-making, commercial oriented management, operates as a dependent division or independent unit of private enterprises. This is another important future consideration for KPA.

**Remark:** It would be advisable for government to continuously improve the port performance through reviewing KPA Act 1990 for further port reforms such as reiterated in the foregoing. There is no point of having a sound organisational structure when the statutory provisions limit the ports’ autonomy to operate on a
full commercial basis. The success of KPA means windfall dividend to the
government and creation of employment and business opportunities discussed in
the previous chapter 3.

4.3.1.2.2. Location of the ports

As far as port location is concerned, Betio port is a seaport with artificial
improvements like port infrastructures and superstructure, see appendix 21.

Betio port is located on the capital island of Tarawa, see appendices 19, 20 and 21
for the map of the country, Tarawa Island and Betio Port general layout.

There are two Port development plans for Betio Port:
i. Improvement plan 1998-2000: a new container terminal shown in appendices
   22a and 22b.

ii. Future conceptual Port development plan from 2000-2005: see appendices 23a
    and 23b. The government has ear-marked about four islands to be included in
    the future conceptual port development plan from the year 2000 to 2005, see
    appendix 19. The four Islands are: Kiritimati - London Wharf, Butaritari - a
    jetty with a wharf, Abemama - Break water protecting basin and the channel and
    Beru island – copra sheds and a reef blasted channel.

Kiribati is divided for easy administration as follows (see appendices 19 and 20):
Gilbert group:

- Northern Gilbert consisting of 5 islands - Makin, Butaritari, Marakei,
  Abaiaang and the capital Tarawa.
- Central Gilbert consist of 4 islands - Maiana, Abemama, Kuria, Aranuka
- Southern Gilbert consists of 8 islands - Nonouti, Tabiteuea, Beru,
  Nikunau, Onotoa, Tamana, Arorae and Banaba.
Line and Phoenix group:
- Line Island groups: Teraina, Tabuaeran, Kiritimati, South line group
- Phoenix Islands groups: Canton and other islands.

Based on the above geographical location of the islands, a divisional or regional organisational structure may be considered in future when the conceptual port development plan 2000-2005 is undertaken such as illustrated in figure 4.5 below:

![Figure 4.5: A divisional structure](image)

It should be stressed that the proposed organisational structure above can only be adopted when there is sufficient traffic and financial resources to justify the expansion and creation of new regional and sub-regional office as subsidiaries of KPA.

4.3.1.2.3. Type of Ports function

As far as function is concerned, Betio port is operating, on a small scale, as a transhipment port for its immediate neighbouring country – Tuvalu (see appendix 19). It would be in the best interest of both KSSL and KPA to maintain and even try to increase the level of transhipment freight to Tuvalu into the foreseeable future.
A functional structure is not clearly defined in the existing KSSL organisational structure. However, the divisional structure adopted by KSSL is much clearer. The illustration in figure 4.5 above is applicable also for transhipment port where some of the offices are located in other countries or regions besides the head-office based at Betio on Tarawa Island.

4.3.1.2.4. Port’s trade pattern

As far as the trade pattern is concerned, Betio port is a mixture of import, export general cargo, containerised and bulk cargo port. A product type of structure is applicable to port trade patterns as illustrated in figure 4.6 below. A product structure agrees is somewhat similar with JICA’s proposed structure.

![Diagram of Product Organisational Structure](image)

Figure 4.6: Product organisational Structure

The other types of organisational structures include a matrix structure, management by committee structure, informal organisations like group and team working which are especially conducive for research departments, planning departments dealing with development projects and training sections.

A matrix type organisation is increasingly used in the port organisations where the horizontal functional management can traverse the vertical or hierarchical line management. For instance, the engineering department would interact functionally at all levels with counterparts in the operational departments so as to eliminate the need for interdepartmental co-ordination at the department Directors level only. The problem with a matrix type organisation of a staff being
responsible to two superiors can be overcome through team, proper trained port staff and workers. All of these structures are not present in the existing organisational structure of KSSL.

4.4. The ten principles of modern organisation.

The 10 principles of modern organisation is important for consideration for KPA structure for the new millennium:

4.4.1. The principle of objectives
4.4.2. The principle of specialisation
4.4.3. The principle of co-ordination
4.4.4. The principle of authority
4.4.5. The principle of responsibility
4.4.6. The principle of definition
4.4.7. The principle of correspondence
4.4.8. The span of control
4.4.9. The principle of balance
4.4.10 The principle of continuity

4.4.1. The principle of objective

There is no clear and simplified objective of KPA as KSSL has been concentrating mainly in its shipping operation at the expense of the port.

Due to lack of qualified locals in shipping and port management, there is no corporate plan and strategic plan in existence for KSSL. Again, this shows lack of qualified staff in shipping management who can formulate these strategic plans.
Every port has a purpose or mission statement for being in existence that defines why and what the port authority is there to do. There are three levels of objectives corresponding to their time frame and scope:

- **Mission statement or simply purpose** - Long-term or strategic objectives aimed at the organisation as a whole. Corporate plans and strategic plans are formulated to achieve the mission statement of the company. This is the General Manager or Chief Executive and Board of Directors’ main responsibility to see that the Mission of the organisation is achieved.

- **Medium term objective** is aimed at a divisional or departmental level. The medium term objectives can cover the following functions: marketing, operation, financial, manpower and environment issues at the divisional level of the organisation. Management plans are formulated at this stage based on the strategic plans to achieve the medium to long term objectives.

- **Short term objectives** targeted at the tactical line/supervisory level for the day to day operation. Operational plans and action plans are formulated at this level to achieve the medium to short-term objectives.

4.4.2. The principle of specialisation:

Port activities should be confined to the performance of a single function or closely related functions. General cargo and break-bulk cargo handling require general specialised knowledge and skills in container handling operations. However, KSSL has a mixed pool of port workers for container and general cargo handling operation that is not a good practice for the port labourers safety.

4.4.3. The principle of co-ordination

There should be unity of effort in the organisation to achieve the common goal of the port. Unity of effort in the present KSSL structure needs clarity for the stevedoring, wharf and warehousing operations to be managed by one manager.
and not two different managers, Agency manager and Ports manager, as currently practised.

4.4.4. The principle of authority

There must be a clear line of authority from the top to the bottom level. KSSL existing structure needs to be reviewed to improve delegation of authority from superiors downward.

4.4.5. The principle of responsibility

The responsibility of the superior for the acts of his subordinate is absolute. There should be clear and simple line/operational and staff/specialist functions within the port structure. Line functions are those which are directly involved with the end products or objectives of an organisation: in this case they organise, supervise and carry out cargo handling operations at the berth. Staff functions is the same as specialists-function, their main activities includes advisory services and technical or expert services to line managers.

Remarks: Typical of developing small island states, the existing organisational structure of KSSL is a mixed of functional/line basis of organisation. The six divisions have a mix of line and staff functions. Based on UNCTAD and the author’s field-study observation, an organisation structure can be made simple if the distinction is made between which divisions are performing line/operational functions and which divisions are performing staff/specialist function.

4.4.6. The principle of definition

The job description, authority and relationship with other positions should be clearly defined in writing and published to all concerned. KSSL would require consultant assistance on this aspect. The qualification and experience are the two
important factors that can be used in assessing the General Manager’s competence. All General Managers of KSSL are Master Mariner Class I and foreign sea going Masters or Captains without any formal back-up training in shipping and port management. KSSL performance since inception to date has been very challenging. In fact, in 1998 the Minister of Transport summarily dismissed the former General Manager of KSSL on the grounds of lack of co-operation and incompetence due to critical financial crisis the company has had been facing.

4.4.7. The principle of correspondence

In every position, the responsibility and the authority should always correspond. There is not much problem in this area, however, the existing KSSL organisation requires an in-depth review in this respect.

4.4.8. The span of control

The span of control refers to the number of subordinates reporting directly to his/her immediate superior. The general rule of thumb is 3 to 6 should be the maximum range of span of control but of course depends on how qualified and experienced the subordinates are. In the case of KSSL, the span of control is generally alright but there is still room for improvements which JICA and ESCAP incorporated in their proposals. The modern trend of organisational structures is that they are getting flatter and flatter meaning that the middle level managers are increasingly made redundant and the span of control is relatively increasing. The modern trend is an increasing span of control as the staff are increasingly becoming multi-skilled, highly qualified and experienced requiring less and less managerial control and supervision. This is also an important consideration for KPA.
4.4.9. The principle of balance

It is essential that the various units of within the port organisation should be kept in balance to maintain effectiveness and efficiency of the port. That is, units or sections with the same function can be integrated rather than left on its own as a separate empire.

4.4.10 The principle of continuity

The board of directors should continuously review the organisational structure whenever working practices are altered. Membership on board of directors, committees such as evaluation committee, quality assurance committee and taskforces should ensure that there is continuity in membership. Continuity principle means that at least some or one of the members of the former board of directors or committee should be retained to maintain continuity from previous or former board or committee/taskforce. Changing of all members of whatever body whether the boards of directors, committee or taskforce can results in discontinuity of actions and decisions to be followed up the newly formed body. Problems of handing over can be solved if this principle is considered.

4.5. Organisational Structure

According to Greenberg and Baron (1995, 612), organisational structure is a formal configuration between individuals and groups with respect to the allocation of tasks, responsibilities and authority within the organisation. Organisational structure is an abstract concept represented by an organisational chart. The organisational charts shown in appendices 1 to 12 show five different elements of building blocks of organisational structure:

- Hierarchy of authority – a summary of reporting relationships
• Division of labour – Specialisation as mentioned in item 4.4.2 above
• Span of control as covered in item 4.4.8 above
• Line versus staff positions as mentioned under item 4.4.5 above
• Decentralisation: The degree to which decisions can be made by many lower-ranking employees as opposed to centralisation, see also chapter 5 for further discussion on the subject.

Remarks: All of the above elements are duly considered in the preceding and subsequent sections and chapters.

4.6. CONCLUSION:

The separation of a Port Authority from a Shipping company is a remarkable effort of government in trying to improve the efficiency of both entities. This chapter reveals some of the undesirable patterns of port organisation, based on Baudelaire findings, which is currently practised in Kiribati. The item 4.3.1.1.1. presents some of the justifications of separating the shipping company from the port authority to enhance the competitiveness of both entities. Amidst the manifold challenges and problems of shipping and port sub-sectors, the Kiribati Government is surely taking prudent steps to resolve these problems through its policy of separating the Port from KSSL.

The ten principles of modern organisations, especially item 4.3.1.2.1 concerning conditions for adopting successfully a landlord, tool port or service port should be considered when designing the new organisational structures.

The contemporary trend for Port organisational structures is that the organisational structures are getting flatter and flatter. That is the traditional tall hierarchy with relatively narrow span of control is now increasingly flattened meaning that the span of control is relatively wider. However, the modern trend
of organisational structures getting flatter and flatter means that the middle management levels are increasingly becoming redundant. Flatter organisational structures require value-added posts, multi-functional, multi-skilled, well-trained or well-qualified and experienced staff requiring less supervision and control. To sum up, separation of KSSL from the port must be implemented not only for enhancing the competitiveness of both entities but most importantly for the benefit of the country’s economy as a whole.

The outcome of the evaluation shows the following interesting facts:

- Unity of command of principle is not followed which is one of the contributing factors to the persisting poor management of KSSL and the port. Please read section 4.3.1.1. which discusses very interesting undesirable patterns of port organisation existing in KSSL.

- Government policies of fostering a level playing field is not fully realised as KSSL is still dependent on Government for replacement and acquisition of its major assets. Furthermore, its monopoly position and KSSL role in setting port tariff are some of the challenges that government must overcome.

- KPA should start off as a service port, however, training and education of all port workers is paramount. As soon as separation and establishment of KPA is implemented, training consultants such as UNCTAD and ILO can be requested urgently to conduct their series of port training programmes.

- Please take note of the relevant remarks made in the various sections especially section 4.3.1.2.1.
CHAPTER 5: EVALUATION OF JICA AND ESCAP PROPOSED ORGANISATIONAL STRUCTURES

INTRODUCTION

In chapter 5, a discussion will be based on how JICA and ESCAP designed their proposed organisational structure of KPA. Having identified the basis upon which JICA/ESCAP designed their proposed structures then the evaluation can now be undertaken. The evaluation will be based on certain criteria such whether or not the proposals take into consideration the Kiribati Government policies and also applying some of UNCTAD’s guidelines including what the author observed in his field studies to a number of Ports in Europe, Mediterranean and Japan. Chapter 5 will be concluded with the main points the author wished the reader to understand and appreciate.

5.1. JICA’s approach.

JICA’s approach in designing of the proposed KPA organisational structure can be summarised as follows:

Figure 5.1: JICA’s approach
Based on the above diagram, JICA proposed that the Marine Division currently under the Ministry of information, Communication and Transport should be transferred together with KSSL posts performing port related functions shown in appendix 4.

About 72 staff and workers in total will be transferred from the Marine Division and KSSL to form KPA. Now, based on the above approach, JICA emphasises an operation’s oriented type of organisational structure of KPA shown in figure 5.2. below:

Please refer to appendix 5 for the whole JICA’s proposed organisation structure.

5.2. ESCAP’s approach

Now, the approach undertaken by ESCAP in designing KPA’s proposed organisational structure can be shown below:
Basically, ESCAP method of designing KPA proposed organisational structure is the transfer of all ports and related posts from KSSL to KPA without merging it with the Marine Division.

This is the basic difference between JICA and ESCAP’s proposals. The arguments was that the Marine Division should rightly remain under the parent ministry (MICT) as a state regulatory body in the administration, regulation and enforcement of Shipping Act 1990 and KPA Act 1990. That is the Marine Division’s role as a flag state and port state control should remain with government and not with KPA. In the subsequent section, we will discuss this issue further.

Thus based on the above factors, ESCAP proposed KPA organisational structure as shown in Figure 5.4 below:
For the entire ESCAP’s proposed organisational structure of KPA, see appendix 6 for details. Based on the above structure, we can now start our evaluation of the two proposed structures.

5.3. Evaluation of JICA/ESCAP Proposals:

In the evaluation of JICA and ESCAP proposed organisational structures the following criteria will be adopted:

5.3.1. Government policy and statutory functions

5.3.2. UNCTAD’s guidelines

5.3.2.1. UNCTAD’s general principles of port organisation

5.3.2.2. Determination of port’s organisational size and form

5.3.2.3. Characteristics of sound organisational structure

5.3.1. Government policy and statutory functions of KPA

To recap, the government overall goal based on the President’s policy statement covering 1994-1999 is: “To improve the living standard of an I-Kiribati”. The key government policy element relevant for this dissertation is separation of the
port from KSSL to allow level playing field with the private shipping owners. Similarly, the separation will achieve government policies regarding development of modern and efficient port facilities suitable for international shipping at Tarawa on a commercial basis. This is the reason why JICA and ESCAP were requested to implement the government policy regarding separation of the port from KSSL, see appendices 13 and 16 for government policy and approach to developing private sector participation.

KPA Act 1990 defines the following KPA statutory functions:
(a) To provide and maintain adequate and efficient port services and facilities in ports or the approaches to ports:
(b) To regulate and control navigation within ports and the approaches to ports;
(c) To promote the use, improvement and development of ports;
(d) To co-ordinate all activities of, and within, ports;
(e) To acquire such land and execute such works or do such acts and things as may be necessary in respect of the functions of the Authority under the provisions of this Act or of any other written law: and
(f) Subject to the provisions of this Act, to do all things necessary or convenient to be done in connection with or incidental to the performance of its functions under this Act or any other written laws

Now, in evaluating the consideration of the statutory function of KPA Act 1990 in JICA and ESCAP proposed structures; both JICA and ESCAP take into consideration the statutory functions of KPA but with some different views concerning the tasks and responsibilities of the principal officers elaborated below:
- Chief Executive
- Finance, Administration and Personnel
- Port Master/Harbour Master
- Operations Manager
TABLE 5.1. Analysis of tasks and responsibilities of Chief Executive

<table>
<thead>
<tr>
<th>JICA’s proposed duties and responsibilities of Key KPA staff:</th>
<th>ESCAP’s proposed duties and responsibilities of Key KPA staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chief Executive to be called General Manager and Director of Marine.</td>
<td>Chief Executive Officer be called the General Manager only and not a Director of Marine as provided for in Schedule 2 of KPA Act 1990.</td>
</tr>
<tr>
<td>• Dual role as a chief executive and a Director of Marine at the same time.</td>
<td>• Formulation of corporate and business policies and reviewing the same</td>
</tr>
<tr>
<td>• Responsible for overall operating and efficiency of the port</td>
<td>• Balancing short term priorities and activities from long term developments</td>
</tr>
<tr>
<td>• Long-term and short-term financial obligations of the authority</td>
<td>• Handling public relations and marketing activities with port users, government and public</td>
</tr>
<tr>
<td>• Establishment of asset replenishment fund account from depreciation expenses for asset replacement and acquisition</td>
<td>• Directing his/her subordinates and ensuring so that corporate objectives are met.</td>
</tr>
</tbody>
</table>

Remarks on Table 5.1: JICA designed the responsibilities and tasks of the Chief Executive in line with the existing statutory provision of schedule 2 of KPA Act 1990. That is why the Chief Executive performed dual role as a Director of Marine and a General Manager for the commercial function. However, ESCAP observed that conflict of interest would certainly arise if the same person is responsible for regulatory function and at the same time the commercial functions of the port. Based on the author’s field study observations to a number of ports in Europe, Mediterranean and Japan, ESCAP is right in proposing the demarcation of regulatory functions of flag and port state control from commercial functions. In Malta ports they solved it by following the same approach as proposed by ESCAP. Thus, I would recommend that ESCAP’s proposal take precedence in this case.
TABLE 5.2: Analysis of tasks and responsibilities of Finance, Administration and Personnel Managers

<table>
<thead>
<tr>
<th>JICA’s proposed duties and responsibilities of Key KPA staff:</th>
<th>ESCAP’s proposed duties and responsibilities of Key KPA staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Finance Manager responsible for keeping of accounts and reviewing of tariffs with GM and Operations Manager. The Administration is separated from Account division.</td>
<td>2. Finance &amp; Administration: Accounting, administration and personnel functions merged into one division including 3 jetty security officers from the Marine Division.</td>
</tr>
<tr>
<td>3. Administration and Personnel Manager: Recruitment, social welfare and morale of workers, training, legal and port security matters.</td>
<td>3. Not applicable</td>
</tr>
</tbody>
</table>

Remarks on the above table: The arrangement of these functions is not a problem as the Government can adopt whatever structure it deems fit for KPA’s administration, personnel and accounting functions. However, JICA’s proposal sounds more appealing to government than ESCAP in terms of government’s policy of creation of employment. Thus government may favour separate divisions for Accounting and Administration; the decision is up to government to decide. The important factor is to recruit well qualified and experienced port accountant and administrators.
TABLE 5.3: Analysis of tasks and responsibilities of a Port Master/Engineer

<table>
<thead>
<tr>
<th>JICA’s proposed duties and responsibilities of Key KPA staff:</th>
<th>ESCAP’s proposed duties and responsibilities of Key KPA staff</th>
</tr>
</thead>
</table>
| 4. A Port Master and a Deputy Port Master under the Port Master’s Division has the following tasks and responsibilities: flag state and port state control\(^1\) | 4. Harbour Master/Port Engineer duties the position could be filled by either one of them.  
- As a Harbour Master responsible for Pilot services in a close working relationship with Marine Department under MICT.  
- As a Port Engineer: Port maintenance dredging\(^2\) navigational aids, and maintenance of port equipment. |
| 5. Civil Engineer: Responsible for engineering functions for maintenance and performance of port equipment. | 5. No need to recruit a Civil Engineer if a Master Mariner assumes the post as explained in item 2 above and vice versa. |

**Remarks on Table 5.3:** JICA’s proposition is directly in line with the statutory function of KPA where the Port Master be a Chief Executive Officer and at the same time Deputy Port Master in charge of other port master’s functions in accordance with KPA Act Schedule 2. It should be noted that both JICA and ESCAP proposed a number of amendments to the existing KPA Act 1990 one of which is the amendment of the Port Master’s role. ESCAP maintains its proposition that all regulatory functions should be done by government. That is, the Marine Division under MICT should remain as a regulatory body for all marine and maritime statutory requirements. ESCAP’s proposition is what successful ports in developed countries currently practise. Furthermore, ESCAP’s

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\(^1\) Port Master and Deputy Port Master duties and responsibilities provided in Schedule 1 and in Part VI sections 28, 29 of KPA Act 1990.
proposal of having a combined division of Harbour Master and or Port Engineer
division is reasonable given the existing lack of locally qualified port engineers.
Thus either a Harbour Master or Port Engineer can assume this post. However,
JICA’s proposal of separating the Engineering section from the ports master’s
division is good for the long-term benefit of KPA, especially earliest recruitment
of qualified civil Engineers and mechanical/hydraulic engineers to overcome the
existing poor port maintenance standard. The discrepancy in JICA and ESCAP
organisational structures is due to timing of establishing KPA and interpretation of
the statutory functions of KPA. I agreed with ESCAP’s proposition concerning
the possible conflict of interest that can arise if KPA tries to play two roles at the
same time. One being a regulatory body and the other as a commercial entity
(Regulation and Control) always results in conflict of interest. If KPA is
responsible for port state control, fast turn around of vessels may be compromised
with other regulatory procedures that may not be conducive for the commercial
operation of the port. For instance, detaining of vessels for inspection in
compliance with Port State Control or Flag State Control regulations is not
favourable to the Port’s commercial aim of fast-turn around. The dilemma is how
can the Port reconcile its commercial objective with its non-commercial
regulatory functions. It seems impossible and conflict of interest is always likely
to ensue. Thus, Port State control should be given to the parent ministry (MICT).
Otherwise, both proposals adequately addressed government policy and statutory
functions of KPA in designing of their proposed organisational structure for KPA.

\[2\] Dredging maintenance done by the Marine Department of MICT.
TABLE 5.4: Analysis of Operations Manager’s tasks and responsibilities.

<table>
<thead>
<tr>
<th>JICA’s proposed duties and responsibilities of Key KPA staff:</th>
<th>ESCAP’s proposed duties and responsibilities of Key KPA staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Operations Manager: Responsible for general cargo and container berth operations.</td>
<td>6. Operations Manager: No change, the same duties and responsibilities be carried over to the new KPA.</td>
</tr>
</tbody>
</table>

Remarks on Table 5.4: ESCAP proposition emphasised minimum disruption at the earliest stages of transfer of the ports division from KSSL to KPA. This is the reason why ESCAP proposed no major changes in the Operations Manager’s duties and responsibilities during the transition period. However, ESCAP proposal for KPA to adopt a landlord port organisation should be considered for KPA’s future. JICA’s proposition of an operations oriented structure seems to favour a service port, see chapter 4 for discussion on the types of port organisation. JICA’s proposal of KPA adopting a service port is certainly what Betio port is like at present. Thus, KPA will start off as a service port but can consider also ESCAP’s proposal of becoming a landlord port in the near future if there is sufficient traffic to justify the reform. See also appendices 10, 11 and 12 for the various models of organisational structures for berth management, mechanical/electrical section and Baudelaires model.

Appendices 17 and 18 can also assist in understanding the various classifications of port activities and services for designing a sound organisational structure.

5.3.2. UNCTAD’s Guidelines

The following evaluation criterions will be applied to JICA/ESCAP proposals:

5.3.2.1. UNCTAD’s general principles of port organisation
5.3.2.2. Determinants of organisational size and form
5.3.2.3. Characteristics of sound organisational structure
5.3.2.1. **UNCTAD’s principles of port organisation:**

All organisations which have economic activities should consist of components or units (groups of persons) performing specific tasks or functions. Activities of an economic system may be divided into 3 categories as follows:

i. Activities producing results such as cargo handling services to vessels that produce results.

ii. Support activities: Maintenance and staff training should not be integrated with revenue earning activities above. Baudelaire commented that maintenance in general is closely related to operations. It is sometimes claimed that in order to make co-ordination and co-operation simpler, maintenance should be the province of operation. Similar views held that the personnel in charge of driving of ports equipment and plant should be under the operations department, see appendices 10, 11 and 12 for the various models on organisational structures that may be worth considering.

iii. Management activities

Similarly, the following principles of port organisation should be considered:

- Support activities should not be integrated with revenue generating activities. JICA and ESCAP proposals follow the same principles of separating the operations department/division from other support services (see appendices 5 and 6).

- Separate activities producing the same contribution to the same result can be integrated so that they form a single cost centre in the organisation. Both reports followed this principle especially ESCAP’s proposal integrating Finance and Administration department, see Table 5.2 above and appendix 6 for further details.

- Activities, which make different contributions, should not be integrated. Both proposals follow this principle.
Thus, in a port system, it is worth integrating the different cargo-handling activities whereas support activities such as training and maintenance should be separated.

5.3.2.2. Determinants of organisational size and form

In determining the size and form of each unit or component of a port organisational structure, the following principles can be adopted:

- Firstly, the structure must be as simple as possible. There must be as few command as possible. Yes, JICA/ESCAP proposals were along the same principle except further clarity is needed to distinguish between line/operational and staff functions for both proposals, see appendices 5 and 6.

- Secondly, structure the components and units based on functional approach. That is separating the divisions/departments based on the functions they perform. For instance, inshore pilotage function may require only a small number of staff, cargo-handling function may require considerable number of staff and specialised equipment. Yes, both proposals emphasised functional structure.

- Thirdly, the various components and units be organised on the “team work” system. Teamwork applies to research activities, innovation and management. This is an important factor that JICA/ESCAP did not cover in detail probably because they leave it to KPA management to develop its own teamwork structure and system. A team structure for the operations is important as one of the tools to motivate and improve port staff or workers morale and productivity.

- Identify the key activities that play a vital role in the performance of the task or the achievement of the priority objectives. In a traditional port (first generation port), the key activity is cargo handling (ship/shore or shore/ship) while in transhipment port the key activity is discharging and loading cargo handling operation. Key activities should never be subordinated to other activities. Revenue generating activities should never be subordinated to non-revenue generating activities. Both proposals cover this aspect very briefly.
• Decentralisation of decision-making should be encouraged. The number of levels between decision-makers and those carrying out the decision determines the efficiency of the organisation. Delegation of responsibility should go together with authority and accountability. Decision-making should be decentralised to those levels that possess all the information for taking action or those levels where problems actually occur. That is, decentralisation to levels where the contact with the client is. Both JICA/ESCAP proposals favour this approach but the challenge is whether top management can adopt it or not.

**Remarks:** From the above factors, team-structure is the only element that was not dealt with in detail by ESCAP and JICA. Thus, I would recommend that to ensure successful port performance, a team structure should be designed by top management. The best team structure should be designed at the operations division comprising of multi-disciplinary team such as Engineering division with Operations division plus Finance division forming one team (Crook and Ircha, 1999). Other incentive schemes proposed by ESCAP and JICA for gang performance may be integrated as part of the package for awarding team performances.

5.3.2.3. Characteristics of sound organisational structure

A sound organisational structure should have the following characteristics:

(a) It should be clear: Defined responsibilities, objectives and defined relationships between each unit. Yes both proposals adequately cover this area

(b) It should be stable. There should be no radical changes of the structure unless the conditions for performance of the activities have substantially altered. It is not applicable as KPA is yet to be established.

(c) It should be functional and allow the organisational functions to be carried out under the best possible conditions. As mentioned in the foregoing, this is the basic principle upon which both proposals adequately emphasised.
(d) It should be adaptable. Adaptable to changes in technological and economic conditions. The organisation’s structure should anticipate change and adapt itself rapidly and fully. This is more relevant to the organisational culture to be fostered when KPA is established.

(e) It should be flexible. Flexibility in adapting to market changes is a major asset, which enable organisations to function efficiently. It is hard to measure and evaluate this factor.

(f) It should allow good flow of communication. Internal communication can be achieved by simple structures. Yes, both proposals allow good flow of communication.

A good organisation is one that has the ability to use effectively its available human and financial resources. A good organisation is the one that can achieve economy of scale and a reduced or few levels. As mentioned in the previous chapters, quality assurance management system is an integral part of competitive ports. Thus KPA should consider it together with the above factors in order to remain competitive in a volatile maritime markets.

5.4. CONCLUSION:

JICA’s proposal favours a service port type of organisation whereas ESCAP favours a landlord port in the near future for KPA.

Due to the statutory limitations of KPA Act 1990 Schedule 2, JICA proposed a chief executive performing dual role as a chief executive for the commercial function of the port and at the same time as a Port Master for regulatory role of KPA. However, both JICA and ESCAP recommended amendment of KPA Act 1990 to resolve the apparently conflicting role of the chief executive as limited by the statutory provisions. Thus, ESCAP strongly proposed for the demarcation of the role of a Chief Executive and the Port Master to grant KPA autonomy to operate on a strictly
commercial basis for the benefit of the shareholder, port customers, the company itself and the country’s economic development. In fact, KPA Act 1990 is the main constraint that both JICA and ESCAP faced in designing of the proposed organisational structures of KPA. Thus, I would recommend that recommendations made by JICA and ESCAP regarding amendment of KPA Act 1990 should be given due consideration by the parent ministry.

The outcome of the evaluation shows the following interesting facts:

- Both JICA and ESCAP take into consideration the government policies in designing the proposed structure of KPA
- Both JICA and ESCAP recognise the limitations of KPA Act 1990 which they strongly recommend for its amendment if KPA has to operate as an autonomous commercial Port Authority
- ESCAP recommendation regarding the duties and responsibilities of KPA Chief Executive should take precedence over JICA.
- Recruitment of qualified and experienced Port Accountant and Administrators
- Both proposals meet UNCTAD’s criteria except team building and team structure that needs attention once KPA is separated and established.
CHAPTER 6: PROPOSED INTEGRATED ORGANISATIONAL STRUCTURE OF KPA

INTRODUCTION

Having defined the purposes or aims and functions of KPA it is then necessary to ensure that the system has appropriate structures both at a national level and at the individual port area. Because all port systems have different purposes and aims, the organisational structures (organisation of functions and tasks) differ widely from one port system to another.

Based on the analysis and evaluation done in the previous chapters, we can now integrate the two proposals JICA, ESCAP and compare it with Malta Maritime Authority (MMA) organisational structures to form the basis of another proposal to the Kiribati Government. Chapter six also discusses what KPA Board of Directors composition, qualification and appointment should be. The proposed integrated organisational structure discussed in this chapter six reflects the original creativity of the author. Chapter 6 will be concluded with the main points the author wants the reader to understand and appreciate.

6.1. Proposed integrated organisational structure of KPA

The proposed organisational structure of KPA is based on the integration of three organisational models, see appendix 8 for further explanation:

- JICA’s proposed organisational structure as detailed in appendix 5
- ESCAP proposed organisational structure as detailed in appendix 6
Malta Maritime Authority (see fig 6.2 and appendices 7a and 7b): Ports Directorates, Shipping Directorates

According to Professor Hodgson’s lecture notes on management, in setting up from a new organisation or considering the effectiveness of an existing structure, the following should be taken into account:

- Define what the organisation is there to do.
- Analyse the circumstance in which the activities are carried out.
- Identify the activities required to achieve the aims of the organisation.
- All related activities can be logically grouped together into units and within units into individual positions.
- Establish the relationship that should exist in the organisation – vertically, within functions and horizontally between functions paying particular attention to the need to integrate related activities. This is the subject of discussion for this chapter.
- Ensure that everyone in the organisation understands what they have to do (Responsibilities), How far they can go in doing it (Authority), and the structure in which they operate and the relationships they are expected to maintain.

Remark: It should be noted that the first point up to the fourth have been dealt with in the preceding chapters. Further discussion of the fifth point will be made in this chapter besides what has been covered in the previous chapters related to this subject. The last point concerning the authority and responsibility will not be covered in detail as this dissertation is only concentrating on the structural restructuring with minimum interruption and changes to the top management during the transition period. Further changes can be made once KPA is established.
The proposed integrated organisational structure is shown below, refer to appendix 8 for further details:

The structure proposed above agrees also with UNCTAD basic principles for port organisation. Because there is not enough time to review the organisational as a whole, this dissertation shall develop the above structure by concentrating on the following areas:

- Reasons for adopting some of Malta Maritime Authority structures
- Advice to policy decision makers about composition of the Board of Directors in terms of numbers, qualification and appointment.

6.2. Reasons for adopting some of Malta Maritime Authority structure

Malta was one of UK’s colonies so its maritime laws are inherited from England. Kiribati was also a British colony and so most its existing maritime laws were leftovers from the colonial administration. Furthermore, Malta has very limited export and heavily dependent on imports and likewise Kiribati. Malta maritime laws especially its original Merchant Shipping Act contained the same problems facing
Kiribati Port Authority Act 1990. The problem of conflict of interest for the port having to perform dual functions that will be discussed in the next sections.

Malta Maritime Authority main structures is shown below:

![Overall structure of Malta Maritime Authority](image)

Figure 6.2: Overall structure of Malta Maritime Authority

Ports Directorate has dual roles:
1. Regulation of maritime affairs: regulatory function
2. Operator of the port of Valletta: commercial function of port management of cargo berths and passenger berths

The Ports Directorate is entrusted with the management and development of harbours in the Maltese islands. It is also responsible for the preservation of good order in the territorial and internal waters of Malta and for the prevention and control of pollution of ports.

**Remark:** Conflict of interest existing in the Ports Directorate within MMA is between being a regulator and at the same time a commercial operator. However, to overcome this conflict of interest, the port state control was delegated to the Merchant Shipping Directorate. This was a remarkable initiative outside the legal constraints that are often take time to be amended. The statutory limitations of KPA can also be resolved by adopting the same approach.
The Shipping Directorate is responsible for Merchant shipping who, in terms of law, is also the Registrar-General of shipping and seaman. The activities of the Shipping Directorate focus on three areas of activities:

i) Ship registry services: Open registration, Malta is 5th in world open registry
ii) Technical issues
iii) Research & Development

The Shipping Directorate responsibilities include:

i) To register ships, yachts, and regulate control and administer all matters related to merchant shipping and marine pollution prevention and control provided for under the merchant shipping Act and other relative legislation
ii) To regulate the employment of seafarers and to promote and advance the skills of seafarers and of persons employed in the maritime industry
iii) To foster Malta’s relations in international shipping for and to administer the implementation of international conventions and agreements such as IMO conventions, ILO, INMARSAT etc.

Remark: The Shipping Directorate function is basically the same with the Marine Division within MICT, see appendices 1 and 2. MMA has a similar structure with JICA’s proposal but the difference is that the port state control is not done by the Ports Directorate but delegated to the Shipping Directorate, that is what ESCAP proposed for KPA structure. Thus, interesting enough, MMA structure combines the best features of JICA and ESCAP proposals. This is the reason why the author uses MMA structure as the basis of designing his integrated proposed structure shown in figure 6.1. and detailed in appendix 8.

Yachting Centres Directorate

Legal responsibilities of yachting centres directorate are as follows:

i. To provide, maintain, operate and develop yachting centres in Malta
ii. To regulate and control yachting activities
iii. To promote yachting facilities abroad

However, the yachting centres Directorate never materialises based on the de-briefing given during the field trip to Malta. KPA may also conduct a feasibility study on construction of yachting and cruising ports to boost tourism industry in the country. Tourism industry is the most environmentally friendly industry that is important for ecologically sensitive islands of Kiribati.

6.3. Port Authority Board

According to Drucker (1996, 176), the Board must not be the governing organ that the law considers it to be. It must be an organ of review, of appraisal and of appeal for the company as a whole. Only in a crisis does the Board can become an organ of action but essentially an organ of review. Similarly, the Board is stronger and more efficient if members are not employees/full time officers of the company. What is needed on a Board is not people who agree with management anyhow, but people who are likely to see things differently, to disagree and to question the assumptions on which the Chief Executive or General Manager acts without, usually knowing that he is making them. There should be an attractive financial benefit for members of the Board of Directors.

Remarks: This is where the final accounts, port performance indicators including equipment performance reports, progress reports on implementation of the various plans of the company such as: strategic plans, management plans and action plans; should be made available to the Board of Directors at most or every board meetings. Based on the author’s experience as one of the former members of the Board of Directors for the Kiribati Shipyard Ltd, see appendix 1, most of the above factors present real challenges to most public enterprises.
Before KPA board is elected, it is important for Port policy decision-makers to have an in-depth understanding of the concepts and practices of what constitutes a Port Authority Board of Directors:

6.3.1. Composition
6.3.2. Qualifications
6.3.3. Appointment
6.3.4. Major roles and responsibilities of Ports Board of Directors

6.3.1. Composition of Ports Board:

In French port’s board, they usually prefer an extended composition as they claim that it provides an opportunity for direct access to information about national economic policy, local community interests and various requirements of the port’s clients. This proposition is similar to advocates of macroeconomic approach where the government should have a majority of the seats on the governing board to enable government, acting in the public interest, to ensure that the decisions taken favour the achievement of the port’s policy objectives. The microeconomic approach is not applicable in this case.

However, in British ports they prefer a limited membership as they claim that a large representation may cause conflicts of interests if the representatives are acting on their interest of the body they represent rather than acting as representatives of a broader concern.

The Canadian port’s board membership emphasises that the members should have the capacity and experience required for discharging the functions they represent.

Baudelaire recommended that the number of board members should be kept as minimal as possible.
According to UNCTAD’s recommendation, the port authority structure must be public in character, having a corporate body with financial autonomy. There is no optimum composition of the governing board of directors; however, it is desirable that the voice of the following parties be heard:

- The government, the local authorities and government economic agencies responsible for the area in the port is situated
- The port users
- The port operators
- Employees and staff of the Port Authority
- Qualified and competent persons in economics, commercial, social fields. Some countries have expanded to include the trade union representatives not to represent the interest of the Port workers and Port users but to give the governing board the benefit of their experience and competence.

Local representation is better than national representation on the governing boards is important for the strengthening the commercial and development functions of the port where it is located. An effective way for government to encourage the Port Authority’s autonomy is by delegating one government representatives usually the Chief Accountant or Government Commissioner whose role must be restricted and not intervening to the Port Authority’s everyday management.

An interesting recommendation made by UNCTAD’s is setting up of a national Ports Board based on the port functions. At the head-quarter a national Ports Board may be established to take care of the internal functions, of the Port Authority while the external functions were decentralised and carried out by the local Ports Board that plays the same role as the Port authority but responsible for a particular locality.

Similarly, an interesting recommendation made by Geoffrey (1990) proposing the appointment of part-time non-executive board of directors. Their function is to bring special expertise and general experience to the company. This is applicable where
the Port authority has borrowed substantial funds from outside or foreign financial institution in which case its representative may be accorded board status as a watching body over how the port is utilising the funds and progress of the repayment etc.

**Remarks:** Kiribati government is at liberty, to choose whatever composition of KPA boards that is favourable to its policies, to adopt taking into consideration the foregoing issues.

6.3.2. Qualifications

There are two philosophies of membership:

a) Public officers elected as board members such as: representatives of government departments, of payers of port dues, thus including shipowners, importers and exporters, freight forwarders, and other civic bodies like Chambers of Commerce and any port employee. Most technocrats do not trust clients to sit on boards as they may influence policy formulation to their advantage. However, if the port is capitalised on fixed interest borrowing, the actual providers of the capital are the clients whom the charges are made to. In such a case, especially autonomous ports, the clients may rightly be entitled to claim a seat on the Port’s board. Furthermore, if board members are public officers, they should not be entitled to sitting allowance if the board meeting is held during official working hours. This is now realised in Kiribati.

b) Based on expertise in the fields of shipping, banking and commerce and for their known dedication to the public interest. If the privates sit on the board, they should be entitled to sitting allowance if board meeting are held during working hours.
**Remark:** The above are worth considering when nomination for KPA Board of Directors is made.

6.3.3. Appointment

According to Baudelaire, based on his renowned work and experience in ports, he strongly recommended that the Minister, who has the port under his portfolio, should avoid appointing himself to take upon himself the office of chairmanship on the Ports board. Furthermore, no person directly associated with any form of port activity or any form of transport to and from the port should be permitted to hold office or casting vote. The reasons are obvious, to avoid unfavourable bias decisions to the Port at the expense of the other companies under the Ministry. The Ministry of Transport should treat all of its companies without bias or discrimination to ensure that the all of its companies generates enough profit for themselves and for the government’s dividend. Government should be concerned with how its dividend can be regularly received and generated from the Port.

A high ranking Custom’s officer should be appointed to sit on the board to seek his understanding and co-operation in ensuring fast turn-around of vessels such as development of IT and EDI to facilitate fast customs clearance.

6.3.4. Major roles and responsibilities of Ports Board of Directors

A Board of Directors is an executive committee. Theoretically charged with managing the corporation on behalf of the shareholders. Some of the major roles and responsibilities of Board of Directors are as follows:

- Trusteeship, guardians of the corporate assets
- Objective setting
- Budget approval of Port Authority annual budgets
- Selection of key executives
• Monitoring performance
• Proactive to management and staff or workers problems

Remarks: KPA Act 1990 Part III lays out the functions and powers of KPA for monitoring the performance of KPA. To reiterate, this is where training is needed to establish a sound Statistics department for collecting, analysing and compiling of port performance indicators that are not widely practised and understood by KSSL as one of the important sources of information to the Board of Directors. Once again, separation of KPA and port authority is the first important step to improve the existing poor port management information system. I agreed with ESCAP’s recommendation of adopting its computerised port tariff management system which are currently adopted in the neighbouring countries to resolve most of these problems.
6.4. CONCLUSION:

The proposed integrated organisational structure can be considered as another proposal that the Kiribati Government may consider besides ESCAP and JICA. The proposed integrated organisational structure incorporates three basic structures: ESCAP, JICA and Malta structures. However, it should be noted that political interest is always paramount. But at least, government should be in a better position to select from various alternatives to ensure that whatever selected structure for the new envisaged KPA the foregoing factors are taken into consideration to ensure a competitive and successful port organisation.

The main point that needs to be reiterated is for government to implement the separation as soon as practical. Since the current Betio port upgrading is funded by JICA, JICA’s proposal is very likely to be adopted. There is no harm if JICA’s proposal takes precedence over ESCAP and the author’s proposal as long as the government of Kiribati takes into consideration the foregoing. Government policy of improving the efficiency and effectiveness of the shipping and port transport sub-sectors through immediate separation of the shipping company from a port authority is a very wise policy the benefit of which is not realised as yet till the separation is implemented. A number of remarks made in the relevant sections that may be worth some consideration by KPA regarding KPA Board of Directors composition, qualification, and appointment criteria.

The foremost important step in initiating the separation is to establish the Board of Directors as the first step followed by appointments and transfer of staff. The Board of Directors should exist first, in accordance with KPA Act 1990, to monitor a successful transition without too much fuss and hustle at the beginning.
CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

The evaluation is based on the concept of port comparison of the two proposed organisational structures of JICA and ESCAP for KPA in comparison with Malta Maritime Authority. The objective of the comparison is to evaluate the proposed organisational structures of KPA so as to be able to adopt a sound organisational structure for efficient and effective port management.

The Republic of Kiribati, see map in appendices 19 and 20, is one of the developing countries dependent so much on imported goods. The evaluation criteria adopted are in chapters 4 and the outcome is an integrated proposed organisational structure discussed in chapter 6.

The proposed organisational structure is not meant to supersede ESCAP and JICA’s proposed structures but an integration of both structures in comparison with the Malta Maritime Authority structure.

The following recommendations should be considered before a new organisational structure of KPA can be approved:

- The appointment and establishment of the Board of Directors should be first undertaken to monitor the rest of the transition arrangements.
- All posts transferred to the authority should retain their salary levels to avoid confusion at the initial stages. The salary levels may be reviewed at a later stage once KPA is physically established.
- Top management should be committed to conducting a strategic port planning exercise to ensure that the mission statements, objectives, functions and strategies of the port are formulated followed by designing of the organisational structure.

“For everything there is a season, and a time for every matter under heaven: a time to tear and a time to sew, a time to keep silence and a time to speak” Ecclesiastes 3:1,7.
• Every determinants and characteristics of a sound organisational structure mentioned in chapter 5 and chapter 6 should be considered.

• Schedule 2 of KPA needs immediate amendment to delete the word Ports Master and replaced it with Director General of KPA as proposed also by ESCAP and JICA.

• TETRA Company, whose contract is still on-going, may review this dissertation with the author and make amends where necessary to facilitate immediate implementation of the separation of the Port Authority from the shipping company.

• Training and education opportunities for all Port workers should be one of the priorities of KPA. The basic and root cause of all of the foregoing problems and challenges such as poor management is due to lack of adequate port training and exposure. Thus training is one of the most important practical ways to overcome most of the existing organisational challenges mentioned in the foregoing chapters. Similarly, training is an important motivating factor to improve the workers morale and performance. Training is available from UNCTAD, ILO and WMU in all areas of port and shipping management and others.

• Team structures should be established at the operations department and other levels of management. The aim of team building is to motivate staff through incentive schemes such as training awards, recognition awards for creative suggesting and for outstanding performance.

• An evaluations committee should be established to evaluate the KPA strategic plans of the organisation.

• A quality assurance management system should be also considered for introduction and establishment by KPA when the separation is successfully implemented.

“I wish KPA good luck, peace and prosperity for now and for the future.”
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MINISTRY OF INFORMATION, COMMUNICATIONS AND TRANSPORT ORGANISATIONAL CHART

Source: Government of Kiribati
Note: See chapter 4 and 6
ORGANISATIONAL STRUCTURE OF MARINE DIVISION

MARINE DIVISION

Director of Marine (1)

Marine Officer Class 1 (1)

Blasting Supervisor (1)

Senior Beaconing Hand (1)

Blasting Hand (2)

Snr Marine Radio Officer at Kiritimati (1)

Marine Radio Services Officer (3)

Marine Radio Services Officer (5)

Snr Marine Radio Officer at Tarawa (1)

Senior Clerk (1)

Jetty Security Officer (3)

Cleaner (1)

Source: Government of Kiribati
Note: See Chapter 4
EXISTING ORGANISATIONAL STRUCTURE OF KSSL

Source: JICA

Note: see chapter 4
KSSL POSTS RELATED TO PORT OPERATIONS

Source: ESCAP
Note: see chapters 4 and 5
JICA’s PROPOSED ORGANISATIONAL STRUCTURE FOR KPA

Source: JICA

Note: see chapters 5 and 6
ESCAP's Proposed Organisational Structure of KPA

Source: ESCAP

Note: see chapter 5
ORGANISATIONAL STRUCTURE OF MALTA MARITIME AUTHORITY (MMA)

Source: Malta Maritime Authority
Note: see chapters 1 and 6
Source: Malta Maritime Authority

Note: see chapter 6
INTEGRATED PROPOSED ORGANISATIONAL STRUCTURE OF KPA

(ORIGINAL PROPOSAL OF THE AUTHOR: SEE CHAPTER 6)
ESCAP’S PROPOSED FUNCTIONAL STRUCTURE OF KPA

KPA Proposed Organisational Functions by ESCAP

Source: ESCAP
Note: see chapter 5
UNCTAD BERTH ORGANISATIONAL STRUCTURE

UNCTAD BERTH MANAGEMENT MODEL

ZONE MANAGER

SECTION SUPERINTENDENT

TRAFFIC SUPERINTENDENT

Asst. Traffic Superintendent Planning

Asst. Traffic Superintendent Administration

Ship Supervisor

Quay Supervisor

Shed Supervisor

Foreman: Rail

Foreman: Road/Barge

Foreman: Labour

Drivers

Labours

Asst. Traffic Superintendent Administration

Asst. Traffic Superintendent Planning

Quay Supervisor

Ship Supervisor

Shed Supervisor

Foreman: Road/Barge

Foreman: Rail

Drivers

Labours

Quay Supervisor

Shed Supervisor

Ship Supervisor

Foreman: Road/Barge

Foreman: Rail

Drivers

Labours

Source: UNCTAD (1982)

Note: see chapter 5
UNCTAD ORGANISATIONAL STRUCTURE FOR MECHANICAL OR ELECTRICAL SECTION

Source: UNCTAD (1990)

Note: see chapter 5
BAUDELAIRE MODEL OF MARITIME AUTHORITY ORGANISATIONAL STRUCTURE

MODEL PROPOSED BY BAUDELAIRE

MINISTER

BOARD

GM

PLANNING DEPARTMENT

Shipping & Trade Intelligence
Marketing
Statistics

External Audit
Finance & Personnel
Port Estate
Legal

ASSISTANT GM

Shipping & Trade Intelligence
Marketing
Statistics

Finance & Personnel
Port Estate
Legal

FINANCE & PERSONNEL

Port Estate

Shipping & Trade Intelligence

Marketing

PLANNING DEPARTMENT

TECHNICAL DEPARTMENT

Civil Engineering
Dredging
Hydrography Surveys & Navigational Aids

Mechanical Engineering
Electrical Engineering
Workshop Maintenance & Sanitation

Operational Department

Harbour Master
Cargo handling Operation or Supervision of Licensed/Leased Activities

Accidents Prevention
Allocation of port facilities - Cranes - Sheds etc

Work & method studies
Liaison with Local Board

Source: Baudelaire

Note: see chapter 5
### ANALYSIS OF STATE PARTICIPATION IN PRIVATE SECTOR DEVELOPMENT

#### State participation in private sector development

<table>
<thead>
<tr>
<th>National Maritime Authority</th>
<th>State Corporation</th>
<th>Private Company</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functions</strong></td>
<td><strong>Land ownership</strong></td>
<td><strong>Property Ownership</strong></td>
</tr>
<tr>
<td><strong>State regulatory functions</strong></td>
<td><strong>Development functions</strong></td>
<td><strong>Investment functions</strong></td>
</tr>
<tr>
<td><strong>Implications</strong></td>
<td><strong>Financial Costs</strong></td>
<td><strong>Financial benefits</strong></td>
</tr>
<tr>
<td><strong>Commercial risks</strong></td>
<td><strong>Loss of asset value</strong></td>
<td><strong>One off financial gain</strong></td>
</tr>
<tr>
<td><strong>Source:</strong> Malta Maritime Authority</td>
<td><strong>Full investment costs</strong></td>
<td><strong>Share in future profit</strong></td>
</tr>
<tr>
<td><strong>Note:</strong> see chapter 5</td>
<td><strong>Full investment costs</strong></td>
<td><strong>Long term revenue stream</strong></td>
</tr>
</tbody>
</table>

Appendix 13
Appendix 14

EXTERNAL FUNCTIONS OF THE PORT

ARRIVAL OF SHIP

Other services provided to goods

- Temporary storage
- Security
- Checking
- Marking
- Weighing
- Plant health control
- Repackaging
- Equipment hire
- Transhipment
- Insurance
- Customs clearance
- Mounting, assembly
- Processing
- Storage and Distribution
- Administrative and Commercial Documentation

DEPARTURE OF SHIP

Other services provided to ship

- Radio, radar
- Security
- Supplies: water, telephone, bunkering, stores
- Repairs
- Port policing
- Fire fighting
- Medical service
- Waste disposal
- Equipment hire
- Administrative and commercial Documentation

Legend:

- Movement of goods
- Movement of Ships
- Goods arrive from
- Goods depart to hinterland

Source: UNCTAD (1992)
Note: see chapter 3
Appendix 15

UNCTAD’s SUMMARY OF BERTH OPERATIONS

Source: UNCTAD (1982)

Note: see chapter 2
## GOVERNMENT POLICY FOR SEPARATION OF PORT AUTHORITY FROM KSSL

<table>
<thead>
<tr>
<th>Medium Term Objectives for Transport Sector</th>
<th>Policy elements &amp; Actions</th>
<th>Timing and Responsibilities</th>
</tr>
</thead>
</table>
| Ports & Sea Transport sub-sectors: 1. Regular international shipping services to Tarawa | • To develop modern & efficient port facilities suitable for international shipping on commercial basis. Separation of the port from KSSL.  
• To examine diplomatic and pricing solutions to securing a base level international shipping calls/services. | MICT  
MICT, MFEP, MFA |
| 2. Adequate domestic shipping services covering all islands | • Encourage private sector shipping services  
• Apply subsidy through competitive tendering to non-profitable domestic ports of call  
• Upgrade infrastructure on outer-islands where this is cost effective | MICT, MCIT  
MICT, MFEP |
| 3. Safe and non-polluting shipping in areas under Kiribati jurisdiction | • Updating of maritime legislation to strengthen enforcement capacities | MICT, OAG |
| 4. Facilitation of private sector participation | • Ensuring liberal trade and investment policies including:  
• A level playing field for all businesses  
• A sound infrastructure and services at reasonable cost | MCIT  
All Ministries  
MICT & others |

Source: NEPO (1996a)

Note: see chapter 5
Two of the six major government reforms for port sub-sector Improvement of efficiency of all government entities

- Institutional strengthening of the transport sector to be both reliable and competitively priced.

**Government strategies to implement the above reforms include:**

- Assuring a reliable and competitively priced supply of sea transport and other essential services
- Government will examine alternate financing and service development option such as Build-Operate-Transfer (BOT), asset leasing arrangements and revised tariff structure. Government will undertake dredging works for Betio port.

**Key Government Strategic Initiatives**

- Improve ownership and management of government owned corporations (GOC) by isolating public service trading activities as separate accountable operations accountable to central government for their trading performance and to help government determine the likely future of private sector provision of these services. Trading activities include Kiribati Port Authority (to be established) and others.
- Improve ownership and management of GOC by contracting out the management as and where appropriate under performance contracts and otherwise improving the commercial operations of GOCs that are considered to provide monopoly or other lead agency public enterprises
- Negotiating, securing joint venture private parties where relevant to capture industry, knowledge, experience technology, commercial management and overseas markets.
- Government requires corporate plans from all GOC including timetables for their independence from government funding and the establishment of competitive pricing.
Appendix 17

CLASSIFICATION OF PORT ACTIVITIES

Source: Frankel

Note: see chapters 3 and 5

A. Operations
Traffic management & conservancy
Port operations: ship/vehicle management, Resource allocation/labour and equipment, Berth allocation, Cargo handling, storage area/facilities control

B. Management services
Strategic planning, operational analysis, computer operations

C. Engineering
Engineering services, Equipment and facilities planning and maintenance.

D. Finance and Accounting
Cash control, Income and Expenditure statements, Cost analysis, Budgeting, Auditing, Procurement of the Port’s equipment and plants, Financial analysis, Capital expenditure, Pay roll and other accounting works

E. Commercial Marketing
Pricing policy, market research, market analysis and public relations

F. Legal
Contracts, negotiations and other legal works

G. Personnel
Personnel Management, training; social benefits, health care or life insurance and relations with the Unions.
## PORT SERVICES

<table>
<thead>
<tr>
<th>FUNCTIONS</th>
<th>COMPONENT PROCESS</th>
<th>EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conservancy and traffic management</td>
<td>• Hydrographic surveying and harbour space allocation</td>
<td>• Survey launches &amp; surveying equipment</td>
</tr>
<tr>
<td></td>
<td>• Dredging channels and anchorage</td>
<td>• Lights, buoys and lighthouse</td>
</tr>
<tr>
<td></td>
<td>• Providing and maintaining navigational aids</td>
<td>• Pilot vessels, line handling boats</td>
</tr>
<tr>
<td></td>
<td>• Regulation of pilotage and tug service</td>
<td>• Radar, VHF</td>
</tr>
<tr>
<td></td>
<td>• Traffic control</td>
<td>• Berths and fender system, docks, anchorage and dolphins etc.</td>
</tr>
<tr>
<td></td>
<td>• Accommodating /berthing of vessels</td>
<td></td>
</tr>
<tr>
<td>2. Cargo and stores transfer (including passengers)</td>
<td>• Provision of cargo handling equipment</td>
<td>• Cargo handling equipment such as:</td>
</tr>
<tr>
<td></td>
<td>• Recruitment of trained dock labours and berth supervisors</td>
<td>Forklifts, Tractor-trailers, Straddle carriers, Hand Trucks, Conveyors,</td>
</tr>
<tr>
<td></td>
<td>• Cargo working operations</td>
<td>Pneumatic systems and elevators.</td>
</tr>
<tr>
<td></td>
<td>• Administrative controls: Inspections by Customs, health and other</td>
<td></td>
</tr>
<tr>
<td></td>
<td>authorities, ports classification and documentation of cargo, application of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>port charges</td>
<td></td>
</tr>
<tr>
<td>3. Transit</td>
<td>• Inspection and documentation</td>
<td>• As above</td>
</tr>
<tr>
<td></td>
<td>• Storage in transit sheds</td>
<td></td>
</tr>
</tbody>
</table>

Source: Frankel

Note: see chapters 3 and 5
<table>
<thead>
<tr>
<th>PORT SERVICES</th>
</tr>
</thead>
</table>
| **4. Warehousing** | • Inspection and documentation  
| | • Storage in different types of warehouses and sheds such as dry warehouses, cold storage, bonded warehouses and segregated warehouses for dirty and dangerous cargoes  
| | • As above  
| | • As above  
| **5. Storing and servicing ships** | • Bunkering  
| | • Watering & victualling  
| | • Repair and maintenance  
| | • Emergency and non-routine services like towing, dry docking etc  
| | • Health care  
| | • Bunker and water barges and connections like pumps, hoses  
| | • Shore power sources and connections  
| | • Dedicated stores handling conveyors and trucks  
| **6. Maintenance of ships** | • Towing, Dry-docking, Repairing and maintenance  

Source: Frankel

Note: see chapters 3 and 5
REPUBLIC OF KIRIBATI MAP WITHIN SOUTH PACIFIC REGION

Source: http://www.google.com/search: +Kiribati+map.

Note: see chapters 2 and 4
LOCATION OF KIRIBATI

Source: JICA

Note: see chapter 4
Appendix 20

TARAWA ISLAND MAP: LOCATION OF BETIO PORT

Source: JICA

Note: see chapters 2 and 4
The arrows indicate the movement of the working boat or the lighterage from the ship anchorage offshore moving to and from the port. The lighterage operation is a time consuming double handling operation that causes delays and slows turn around time of vessels. The storage operation is also very inefficient due to very limited container yard space. Both the shipping operation and the storage operation of the port’s function are the major bottlenecks.

Source: JICA

Note: see chapters 2 and 4.
About 66% of vessels calling Betio Port have drafts of about 6 metre. The remaining 34% of vessels will still require lighterage operation after this new port is completed.

Source: JICA

Note: see chapter 4
Appendix 22b

IMPROVEMENT PLAN 1998-2000: CONTAINER YARD LAYOUT

Source: JICA

Note: see chapter 4
Appendix 23a

FUTURE CONCEPTUAL PORT DEVELOPMENT PLAN 2000-2005

Source: JICA

Note: see chapter 4

Proposed General layout Plan

(Conceptual development Plan)
Appendix 23b

FUTURE CONCEPTUAL PORT DEVELOPMENT PLAN 2000-2005:
CONTAINER YARD LAYOUT

Source: JICA
Note: see chapter 4
Appendix 24

BETIO PORT IMPACT PRELIMINARY ANALYSIS ON KIRIBATI ECONOMY

A. General impact on employment (Giw)

General impact on employment = Giw = Σ Dw + Σ Iw

Where Giw = General impact of the port on employment.
Σ Dw = Direct employment
Σ Iw = Indirect employment

Assumption:
Total employment in the country can be regarded as an induced employment level given the heavy dependence of the country on imports. One of the major reasons for a persistent trade deficit, of AUD 29,003 in 1994 up till now, is because the country is heavily dependent on imports for most of its basic necessities. However, it would be grossly misleading to assume that 100% of the total employment level in the country be treated as the induced and indirect employment as obviously some sectors of the economy are not 100% dependence on the port. Thus a rational approach would be to look at the sectors which are most directly and indirectly dependent on the port such as:

- Sea port community. The sea port community comprises of public and private businesses or companies who are members of the Chamber of Commerce (COC). However, due to lack of information on the actual number of central government employees who are part of the sea port community, an estimation of 2% is assumed as a representative figure. This 2% of total government employees comprising of customs services, health and quarantine agencies and immigration department and others who made part of the sea port community.
The sea port community and the trade sector in Kiribati are actually the same body. The trade sector includes public and private traders and distributors who are within the port’s hinterland such as: Public trading companies like AMMS Ltd, Abamwakoro Ltd, BKL, Kiribati Copra Wholesale Society and Private trading companies: Ferns Ltd, Chinease stores etc. Thus taking into consideration the seaport community as the more likely representation of indirect employment; we can assume that:

\[ \Sigma I_w = \text{Indirect employment} = \text{seaport community} + 2\% \text{ of central govt employees} \]

Seaport community = Public cos employees + Private Businesses

Seaport community = 1824 + 572 = 2396

2\% of Central govt employees who are part of sea port community = 2\% of 2724 is 54. Thus, \( \Sigma I_w = 2396 + 54 = 2,450 \)

\[ \therefore \text{Giw} = \Sigma Dw + \Sigma Iw = 91 + 2,450 = 2,541 \]

1. **Overall impact on employment (Tiw)**

\( \text{Tiw} = \Sigma(\text{Giw} \times Kw) \)

\( \text{Giw} = 2,393 \)

\( Kw = 1.5 \text{ (since the country’s economy is weak)} \)

\[ \therefore \text{Tiw} = \Sigma(\text{Giw} \times Kw) = 2,541 \times 1.1 = 2,795 \]

**B. Impact on the National wealth or Added value activities (Gross Domestic Product)**

To reiterate, the major problem faced in this exercise is lack of information. The GDP of the country in 1994 at factor cost is AUD 46,173,000. The real GDP since 1994 till now has been averaging at 1\%. To reiterate, the country is mostly an importing country that explained its excess trade deficit of AUD 29,003 in 1994. In fact a trade deficit has been persisting up until now:

1. **General impact on GDP (Gip)**

\( \text{Gip} = \Sigma Dp + \Sigma Ip \text{ where } Dp = 980,467 \text{ and } Ip = 188,551 \)

\( \text{Gip} = 980467+188,551 = \text{AUD 1,169,018} \)
2. Overall impact on GDP (Tip)

Tip = Σ(Gip x Kp) where Kp = ratio of induced AV (variable) from 1 to 1.5

\[ \text{Tip} = 1,169,018 \times 1.1 = \text{AUD 1,285,920} \]

Contribution of the port = Tip/GDP = 1,285,920/46,173,000 = 2.79%

Contribution of the Port is estimated at 2.79%.

The 2.8% contribution of the impact of the port is a rough estimate only. However, provided all other parameters are available a true picture may have been derived. The author will conduct another similar exercise on his return to his home country to refine the above estimates. However, the author is very optimistic that the above figures are very conservative figures meaning that the estimate is quite low. There should be higher number of employment and contribution of the Betio Port to GDP.