

# FORECASTS OF TOURIST ARRIVALS, DAYS AND EXPENDITURE IN PAPUA NEW GUINEA TO 2018



Tourism forecast report by the Papua New Guinea Tourism Promotion Authority

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## **FORWARD**

This study presents the revised forecasts of tourism activities in Papua New Guinea for the next ten years (2008 – 2018). The revision is carried out largely on the basis of most recent information on visitor arrivals and their average length of stay and average expenditure, economic outlook for PNG and its tourism source markets, population growth in the tourism source markets, the marketing and promotion initiatives of the PNG Tourism Promotion Authority, additional flights by our airlines on international routes and the marketing and promotion initiatives undertaken by PNG's competitors in the overseas markets.

The forecasts presented are useful in the planning and management of the tourism sector in PNG. They are expected to help the Government and private sectors to make investment decisions with respect to both short-term (five years) and long-term (ten years) tourism development projects as the study presents both short-term and long-term forecasts of visitor numbers, days and expenditure in Papua New Guinea.

We hope that this handbook will contribute to the further development and understanding of tourism forecasting in general, will encourage more organizations and individuals to engage in the forecasting process, and will enhance the strategic planning and sustainable development of tourism in Papua New Guinea.

We wish you all the best.

Peter Vincent  
Chief Executive Officer  
PNG Tourism Promotion Authority

Date: 28 August 2009

# **EXECUTIVE SUMMARY AND CONCLUSIONS**

## **Introduction**

Papua New Guinea offers a rich array of tourism attractions, among them natural attractions; the cultural diversity of the nation, with mountain peaks, lush, fertile valleys, attractive beaches, coral islands and some of the best diving & surfing destinations in the world, Papua New Guinea is a country of considerable wild beauty. Known as the “Land of a Thousand Cultures”, there are well over 800 distinct languages spoken throughout the country, with a population of some 6 million people. Cultural tourism, adventure tourism, ecotourism and other forms of tourism combined with well serviced flights and some of the luxurious accommodations in the country should flourish tourism. Papua New Guinea is indeed a unique destination compared to other destinations in the Pacific and the world, for both international & domestic visitors to choose as an escapism holiday destination.

Although the tourism sector in PNG is a relatively small sector contributing around 3 per cent to the gross domestic product (GDP), it has potential to expand rapidly in the future, largely due to its close proximity with Australia, New Zealand, Japan and other Asian nations. These countries account for 82.8 per cent of PNG’s inbound visitor arrivals, and they are expected to enjoy a positive economic growth over the next ten years. Moreover, the currency exchange rates of these countries will remain favourable for the PNG-bound tourists of these nations. Following a substantial increase in the Government funding for the TPA’s marketing and promotion initiatives, an expected increase in Air Niugini services on the PNG-Japan route, the stability of the PNG Government, the new LNG project and the substantial improvement in law and order situation in Port Moresby and other urban centres, the tourism sector is expected to develop at a relatively fast rate in the future.

## **Forecasting method**

The forecasting method and the econometric models that were used to forecast PNG’s tourism activities in TPA Forecasting Report 2007 are also used to revise the TPA’s tourism forecasts in this report. The method and models are presented again in this report without any changes, especially to benefit new readers.

The forecasts were updated using both quantitative and qualitative techniques. The quantitative technique uses econometric travel demand models, whereas the qualitative technique involves an adjustment to model based forecasts to account for qualitative factors that are difficult to measure in quantitative terms. The qualitative factors include tourism promotional expenditure, attractiveness and geographical location of PNG, frequency of air services within and outside of PNG, and current political situation in PNG and its main tourist source markets.

Data on quantitative factors were collected from secondary sources such as the TPA, World Bank, the Organisation for Economic Co-operation and Development (OECD), World Tourism Organisation (WTO) and the Bank of Papua New Guinea. Information on qualitative factors were obtained from the TPA and other national and international tourism specialists and organisations in both public and private sectors.

The econometric models of travel demand were re-estimated using most recent data on tourism activities, population and economic variables. The re-estimated parameters were not found statistically different than those reported in TPA Tourism Forecasting Report 2007. Hence, the parameters that were used to update tourism forecasts in TPA Tourism Forecasting Report 2007 are used to update the forecasts in this study. The parameters are presented again in this report without any changes, especially to benefit new readers.

The model parameters suggest that the real income of visitors and the prices of food, travel and accommodation in PNG are key economic factors influencing visitor arrivals to PNG. The exchange rate and the prices of food, travel and accommodation in competitive destinations are also observed having a significant influence on the number of visitors coming to PNG.

## **Macroeconomic Assumptions**

The most recent forecasts of macroeconomic variables and population influencing the tourism activities in PNG were used to revise the forecasts. These macroeconomic and population forecasts were obtained from the publications of international organisations such as the International Monetary Fund (IMF), the OECD, Access Economics and Consensus Economics. These organisations are specialised in forecasting economic conditions of the world.

According to the macroeconomic forecasts, the economic outlook for Australia, Canada, Germany, New Zealand, the United Kingdom and the United States, which are the main source markets of PNG's inbound visitors, will remain positive and strong in the next ten years. This will result in an increase in inbound visitor numbers in PNG.

## **Forecasts**

### **Visitor arrivals**

The tourism outlook for PNG is promising over the next ten years, largely due to the expected strong economic growth in PNG and its major tourism source markets, the TPA's marketing and promotion initiatives in major markets, the proper recognition of the tourism sector by the PNG Government, an expected increase in the number of Air Niugini flights on the PNG-Japan route and the commencement of Air Niugini flights to Hong Kong and Nadi since early last year. Moreover, the law and order situation in PNG has improved markedly in recent years, and the PNG Government has remained stable in the last five years and the re-elected Government which was re-elected in July 2007 will also remain stable for the next five years. As a result, PNG will remain politically stable and secure destination for tourists. This will also create a favourable environment for investors in the PNG tourism sector.

The number of total visitors to PNG is forecast to increase by an average annual rate of 9.4 per cent in the short-term (next five years) and 8.5 per cent in the long-term (next ten years), from 120,134 in 2008 to 190 000 in 2013 and to 260 000 in 2018. Growth will be mainly contributed by an increase in the number of visitors from Oceania and Asia. The number of visitors from these two regions is expected to grow respectively by 8.4 and 9.2 per cent a year over the next ten years to 153 000 and 72 000 in 2018. Oceania and Asia will remain the first and second largest regional source markets of PNG's inbound tourism. In 2008, they respectively accounted for 56 and 25 per cent of the total visitor arrivals to PNG.

The inbound market is presently dominated by business travel. Of the total visitor arrivals in 2008, 65.2 per cent were business arrivals, 28.9 per cent holiday arrivals, 5.4 per cent VFR arrivals and 0.3 per cent Other arrivals. On average, the number of business, holiday, VFR and Other arrivals is expected to grow respectively by 8.5, 9.1, 6.4 and 2.3 per cent a year over the next ten years. Business travel will remain the major segment of the inbound market, followed by holiday and VFR travel.

Australia is the largest single source market of inbound tourism and it will remain so in the future. The number of Australian visitors will increase by 8.4 per cent a year during the forecast period, from 59 600 in 2008 to 137 000 in 2018. Business will remain the main purpose of Australian visitors.

Given the favourable economic outlook for Asia, the Asian visitor numbers are forecast to increase markedly (by 7.6 per cent a year) over the forecast period, from 29 900 in 2008 to 73 000 in 2018, largely due to the strength of the Asian economies. Most Asian countries, including Japan, are expected to achieve a strong economic growth during the forecast period after the global economic recession.

The performance of the Japanese market is expected to be positive over the forecast period, mainly due to an expected positive economic outlook for Japan, the recent appointment of a new Marketing Representative in Japan and the expected additional

service by Air Niugini on the PNG-Japan route in March next year. According to a report by Japan National Tourist Organization, the number of Japanese outbound travellers has increased by 1.6 per cent to 1.7 million in 2007, but decreased in 2008. However, more Japanese are travelling closer to home, especially Korea and Macau. Their outbound numbers decreased by 8 per cent in the first eight months of 2009 and it is expected to continue throughout the year due to the current global financial crisis and the presence of the swine flu threats amongst potential Japanese travellers. This could be the main reasons for a decrease in the number of Japanese arrivals to PNG in the first eight months of this year.

The number of Japanese visitors to PNG are forecast to increase by 6.7 per cent a year over the forecast period, from 5 000 in 2008 to 10 000 in 2018. The number of business and holiday visitors will increase respectively to 1 300 and 8 000 in 2018.

North America is also one of the major source markets of PNG's inbound tourism. It accounts for 9.0 per cent of the total inbound visitors to PNG. This market is a relatively matured market and it is dominated by holiday and business travel. It has potential to grow in the future, largely due to emerging tourist activities in PNG, such as scuba diving and bird watching, and also due to a sustained positive economic growth in Canada and the United States. The number of North American visitor arrivals is forecast to increase by 6 per cent a year, from 10 000 in 2008 to 18 000 in 2018. The growth is expected to be strong in 2010 after picking up slowly from the financial crises and swine flu threat.

Europe is another matured source market which accounts for 7 per cent of the total inbound visitors to PNG. This market is also dominated by holiday and business travel. The performance of this market was outstanding (27 per cent growth) in 2008; however, the first eight months of 2009 looks unhealthy due to the global financial crisis, but expects to pick up strongly during the forecast period. This could be the result of the opening of GSAs in Europe and many TPA's marketing and promotion initiatives in this market.

The number of European visitors is forecast to increase by 5 per cent a year, from 11,000 in 2008 to 16 600 in 2018. The number of visitors from the UK market is expected to grow by 5.7 per cent a year during the forecast period, from 4 500 in 2008 to 7 800 in 2018.

The number of visitors from the Rest of the World has remained relatively small. However, it increased significantly in the last three years, and it is expected to increase by 3 per cent a year over the forecast period, from 1 000 in 2008 to 1 900 in 2018.

### **Visitor days**

The average length of stay (ALS) of overseas visitors has increased by an average of 7.3 per cent a year between 1997 and 2008. However, such a strong growth in the average length of stay is not expected to continue in the future, largely due to the slow pace of infrastructure development in PNG and a stiff competition with other regional



destinations. The ALS is projected to increase annually by 4.6 per cent over the next ten years, from 18 days in 2008 to 30 days in 2018. As a result, the number of total visitor days is forecast to increase by 10 per cent a year over the next ten years, from around 2.2 million in 2008 to 6.1 million in 2018.

### **Visitor expenditure**

A proper study on the impact of the tourism sector on the economy of PNG is urgently required to measure the economic contribution of the tourism sector in PNG. Information on the economic contribution is vital for the Government and the tourism industry to make planning and investment decisions in the tourism sector. In the absence of such information, visitor expenditure which is the partial measure of the economic contribution of the tourism sector can be used to make planning and investment decisions. Hence, forecasts of visitor expenditure are developed and presented in this study.

The visitor expenditure forecasts have been derived on the basis of visitor arrival forecasts and the projected average visitor expenditure in PNG. Econometric models could not be used to forecast the average visitor expenditure, mainly due to the lack of a continuous long time-series data on average visitor expenditure. In this study, PNG's average visitor expenditure trend from 1997 to 2007, with some qualitative adjustment, is used to project the most likely average visitor expenditure in PNG over the forecast period. The average visitor expenditure trend was estimated based on historical average visitor expenditure data that were given in TPA's Visitor Survey 2007 and earlier issues. Since TPA's Visitor Exit Survey was not carried out in 2008, expenditure data are not available for 2008 in order to use them to project average expenditure over the forecast period.

The average visitor expenditure increased annually by 15.8 per cent between 1997 and 2008, from K2 500 in 1997 to K8 600 in 2007. It is projected to increase by 5 per cent a year over the next ten years to K15 000 in 2018. As a result of a strong increase in visitor numbers and their average expenditure, the total tourism expenditure is forecast to increase by 13.3 per cent a year over the forecast period, from an estimated level of K960 million in 2008 to around K4 billion in 2018.

Oceania remains PNG's largest regional contributor to the total visitor expenditure, followed by Asia, North America, Europe and the Rest of World. Most expenditure is incurred by business visitors followed by expenditure incurred by holiday, VFR and other visitors. Business expenditure is forecast to increase by 22.7 per cent a year over the forecast period, from K673 million in 2008 to K3 billion in 2018; whereas holiday expenditure will increase by 20.8 per cent a year over the same period, from K298 million in 2008 to K1.4 billion in 2018.

### **Sensitivity analysis**

A sensitivity analysis was carried out to analyse the impacts of changes in economic assumptions and other qualitative factors on PNG inbound tourism. Two scenarios

(optimistic and pessimistic) have been identified for this purpose. The optimistic scenario assumes a strong economic growth in all source markets, a full recovery in travellers' confidence which was lost due to the global financial crises and law and order problem in PNG, the continuation of political stability in PNG, an improvement in PNG's media image in overseas markets, an improvement in airline services on PNG's international routes and a significant increase in TPA's marketing and promotion budget over the first few years of forecast period. On the other hand, the pessimistic scenario assumes that a weak economic condition in all source markets, the appreciation of Kina, no recovery in travellers' confidence following the global financial crises and other terrorism incidents or diseases, the continuation of political unrest in Iraq and Afghanistan, the surfacing of law and order problem in Port Moresby and other urban centres, the recurrence of political instability in PNG, no change in the negative media image in overseas markets such as Australia, no change in airline services on PNG's international routes and no increase in TPA's marketing and promotional budget. The forecasts under these two scenarios are compared with the forecasts developed under a base case scenario which is the most likely scenario and reflects the present economic and political conditions.

Results indicate that the number of total visitor arrivals will increase annually by 9.2 per cent over the forecast period under the optimistic scenario and 7.9 per cent under the pessimistic scenario compared with 8.5 per cent under the base case scenario. This implies that the number of visitor arrivals will increase by an additional 0.7 per cent a year (addition to the base case growth rate) under the optimistic scenario, and it will shrink by 0.7 percentage point under the pessimistic scenario.

In 2018, the number of total visitor days is forecast to increase to 6.5 million under the optimistic scenario and 5.8 million under the pessimistic scenario compared with 6.2 million under the base case scenario.

Similarly, visitor expenditure will increase to K4.8 billion under the optimistic scenario and K4.3 billion under the pessimistic scenario compared with K5 billion under the base case scenario in 2018.

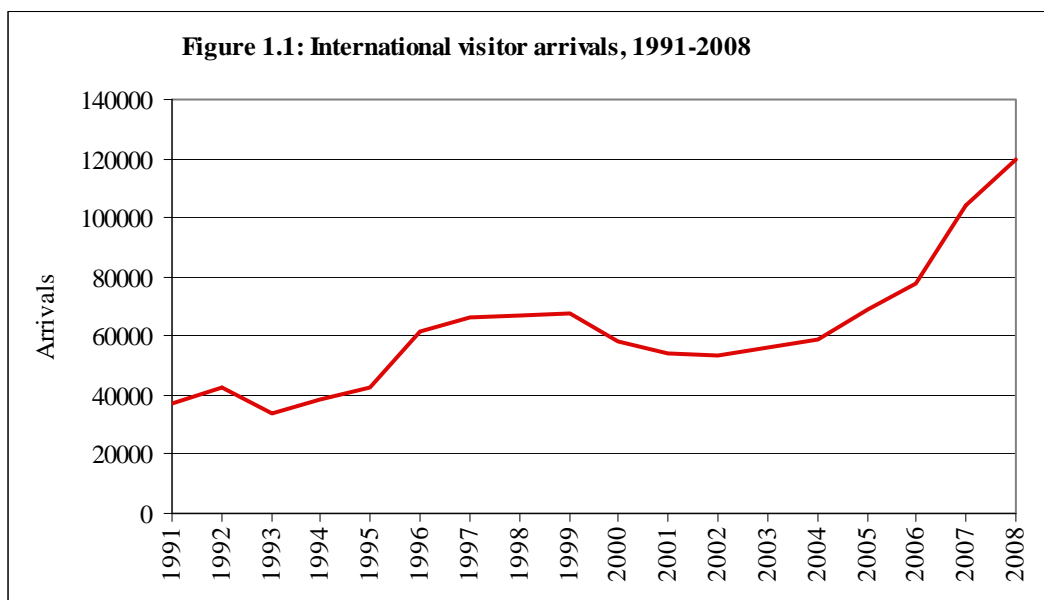
# CHAPTER I INTRODUCTION

## 1.1 Introduction

Papua New Guinea (PNG) with a population of some 6 million and total land area of 463 thousands square kilometres lies just below the equator in eastern South Pacific. It is one of the most attractive tourist destinations in the Asia and Pacific region. The major tourist attractions are the immense variety of landscape, Highlands, plateau, valleys, savanna, rain forest, plantations, life style, culture and diverse marine life.

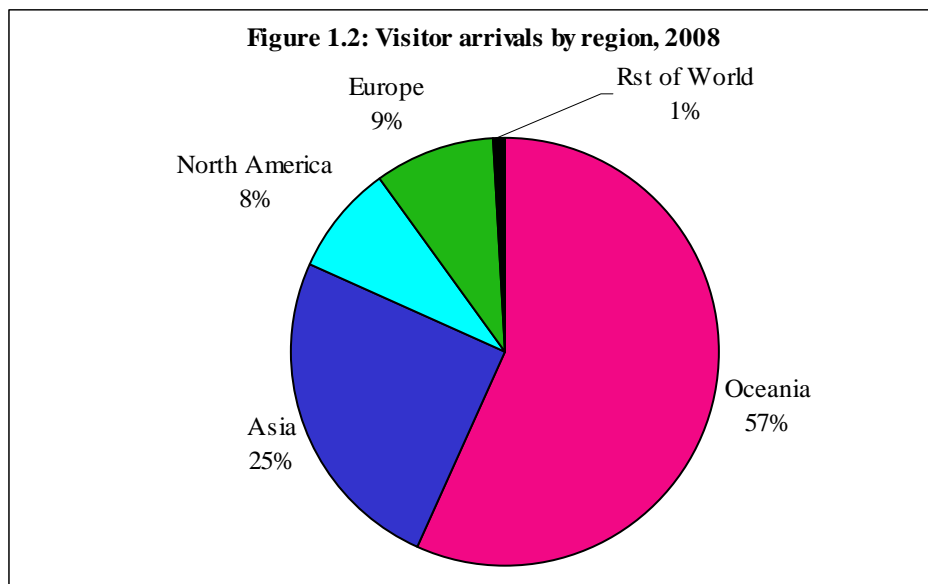
Although the tourism sector of PNG is a relatively small sector contributing around 3 per cent to the gross domestic product (GDP), it has potential to expand rapidly in future. This is because PNG is surrounded by countries with a large population base and high economic growth. Australia and New Zealand, which account for more than half of the total visitor arrivals to PNG, are forecast to achieve a strong economic growth over the next 11 years period. Moreover, the long-term economic outlook for Japan and Other Asia is also positive with an expected high growth in China, India, Malaysia and Philippines, which are the main tourism source markets in Other Asia. As a result, a strong growth in PNG's inbound tourism is expected during the forecast period.

Tourism is becoming an important sector in PNG. The number of visitor arrivals to PNG increased in the last 6 years, from 56 185 in 2003 to 120 134 in 2008 (Figure 1.1). In 2008, inbound visitors spent a total of around 2.2 million days and their total expenditure was estimated to be K960 million.



The number of visitor arrivals declined from 2000 to 2002, mainly due to the switching effect of visitors preferring to go to Sydney Olympic Games instead of PNG in 2000, poor economic growth in many source markets and possible terrorist threat to Westerners following the September-11 incident in the USA and the first Bali bombing. However, PNG's inbound tourism bounced back in 2003 and achieved a strong growth since then. The number of visitor arrivals increased by 4.6 per cent in 2003, 5.0 per cent in 2004, 17.3 per cent in 2005, 12.2 per cent in 2006, 33 per cent in 2007 and 15 per cent in 2008. In 2009, growth in visitor arrivals was slow mainly to the global financial crisis and the presence of swine flu which affected many destinations around world. As a result visitor arrivals are expected to be lower compared to 2008 arrivals.

Oceania is PNG's largest regional source market of inbound visitors. In 2008, it contributed 57 per cent to the total international visitor arrivals (Figure 1.2). Asia is the second largest regional source market with a share of 25 per cent in the inbound market, followed by North America (8 per cent), Europe (9 per cent) and the rest of world (1 per cent).

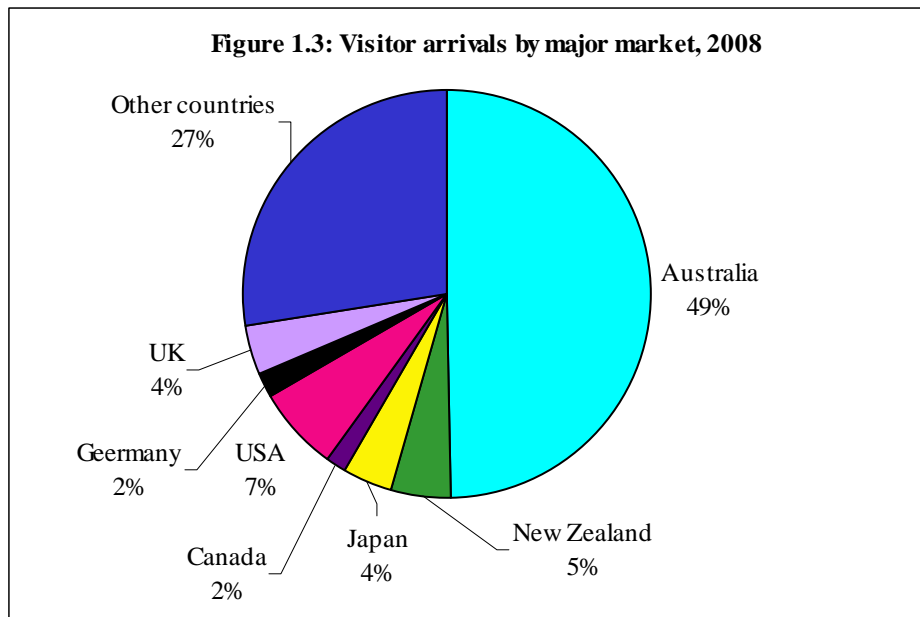


Australia is PNG's largest individual source market, accounting for 50 per cent of the total visitor arrivals to PNG (Figure 1.3). This is largely due to its proximity and strong diplomatic and trade linkages with Australia. The second largest market for PNG's inbound tourism is USA (7 per cent) followed by New Zealand (5 per cent), Japan (4 per cent), UK (4 per cent), Germany (2 per cent), Canada (2 per cent) and, in aggregation, all other countries (27 per cent).

The development of the tourism sector relies on the efficient planning and management of the sector. For this, it is essential to have high quality information on tourism activities. Information on future travel demand, length of stay, tourism expenditure, accommodation type, transport mode and regional dispersion of tourists are crucial for planning, management and investment decision-making purposes. Any decisions made

in the absence of such information are likely to be risky decisions that could result in economic and financial losses to the tourism industry and government.

This study, which is commissioned by the PNG Tourism Promotion Authority, provides the revised forecasts of international tourism activities in PNG. The revision has been done on the basis of the most recent information on visitor arrivals, the length of stay, tourism expenditure, macroeconomic forecasts, TPA's market promotion initiatives and strategies, Air Niugini's planned international services, technological change, political situations in both source and destination markets and other qualitative information influencing PNG's tourism.



In this study, both quantitative and qualitative techniques were used to forecast tourism activity. The quantitative technique includes the estimation of econometric travel demand models of PNG, whereas the qualitative technique involves an adjustment to the model based forecasts to account for qualitative factors that are difficult to incorporate quantitatively into econometric travel demand models.

## 1.2 Objectives of the report

The objective of this study is to revise the TPA's short-term (five years) and long-term (ten years) forecasts of tourism activities: visitor arrivals, visitor days and visitor expenditure. Visitor arrival forecasts have been presented by country of origin and purpose of visit. Tourism forecasts by purpose of visit are useful for planning and investment decision making in the different segments of inbound tourism.

In this study, all travel purposes are broadly grouped into four categories for forecasting purposes. These are business, holiday/pleasure, visiting friends and relatives (VFR) and other (e.g. education and sport).

### **1.3 Outline of the report**

There are ten chapters in this report. Chapter 1 deals with the introduction, objectives and outline of the report. Forecasting models and their variables are discussed in detail in Chapter 2. Chapter 3 presents a discussion on the nature and sources of data that are used in this study. The travel demand models were estimated and the estimated parameters are presented in Chapter 4. Economic assumptions that were used to derive tourism forecasts are given in Chapter 5. Forecasts of visitor arrivals, day and expenditure are presented and discussed respectively in Chapters 6, 7 and 8. These chapters also include graphical presentation of tourism forecasts. A sensitivity analysis with respect to changes in economic and qualitative variables has been carried out in Chapter 9. Chapter 10, which is the last chapter of this report, presents the summary and conclusions of the study.

## **CHAPTER 2 FORECASTING METHOD**

### **2.1 Introduction**

The forecasting method and the econometric models that were used to forecast PNG's tourism activities in TPA Forecasting Report 2007 are also used while updating the TPA's tourism forecasts in this report. The method and models are presented again in this report without any changes, especially to benefit new readers.

Tourism related planning and investment decisions are mostly made at the regional level. Hence, it is important that tourism forecasts should be developed at the regional level. However, this is not feasible at present mainly due to data limitation. Time series data on factors influencing tourism activity such as the prices of travel and accommodation are very difficult to obtain at the regional level. In this report, the national level econometric models of travel demand were re-estimated using additional tourism data from recent years, and they were used to derive tourism forecasts at the national level.

Visitor arrival forecasts were developed on the basis of a two-step approach that involves both quantitative and qualitative techniques. In the first step, model-based forecasts of visitor arrivals were derived based on the estimated econometric models. In the second step, the model-based forecasts were then adjusted to account for the influence of qualitative factors, which could not be quantified for modelling purposes. The qualitative factors that are included in this study are TPA's current marketing and promotion initiatives to promote PNG's inbound tourism in international markets, the planned Air Niugini's services to overseas destinations, attractiveness and location of PNG, and political conditions in both source and destination markets.

The major factors influencing visitor arrivals included in this study are population, income, exchange rate, and prices of food, travel and accommodation in PNG and its tourism source markets. A detailed discussion on both quantitative and qualitative factors is provided in section 2.2. The models used in this study are provided in detail in section 2.3 and the estimated parameters are presented in Chapter 3.

### **2.2 Factors influencing travel demand**

There are many factors that influence PNG's inbound tourism. However, all of these factors could not be considered in the development of tourism forecasts, mainly due to the lack of long time-series data on some of these factors. Only main factors that are shown in sections 2.2.1 and 2.2.2 have been included in the development of tourism forecasts.

## **2.2.1 Quantitative factors**

In this report, population, income, prices of food, travel and accommodation, exchange rate and technological development have been included as quantitative factors in the travel demand models of PNG's inbound tourism. A discussion on these factors is given below.

### **Population**

Many previous travel demand studies have included population as one of the major factor explaining a variation in travel demand. Population is expected to have a positive influence on travel demand, implying more people means more travel. However, such a positive relationship between population and travel demand was tested prior to the inclusion of population variable in the travel demand models. In this study, a positive relationship was found to exist between population and travel demand. Hence, population variable is included in all travel demand models to explain the variations in inbound travel demand. Moreover, it is included on a per capita basis to avoid the co linearity problem between population and income variables.

### **Income**

Income is one of the major economic factors influencing international travel demand. The number of visitor arrivals from a source market to a destination is expected to increase (decrease) with an increase (decrease) in the income level of tourists. Hence, income variable is included in the travel demand models.

There are three main measures of income that have been frequently used in previous studies to explain a variation in travel demand. These are household disposable income, gross domestic product (GDP) and gross national product (GNP). Among these, household disposable income appears to be the best measure as it closely reflects the affordability of a consumer to travel abroad. However, a long time-series data on household disposable income, which is essential to run a time-series econometric model, is very difficult to obtain in many countries. Similarly, historical data on GNP for many countries are also not readily available. Hence, GDP for which a long time-series data is easily available has been used as proxy for income.

### **Own-prices (Prices of food, travel and accommodation in PNG)**

Own-prices of PNG refer to the costs of food, accommodation and travel incurred by international visitors while visiting PNG. Own-prices are expected to have a negative influence on the number of visitor arrivals. This means that an increase (decrease) in the own-prices of PNG will decrease (increase) the number of visitor arrivals to PNG.

Although airfares are important components of own-price variable, long time-series data on airfares are not available due to the business confidentiality of airlines. Hence, the influence of airfares on visitor arrival numbers is incorporated by adjusting the prices of food, travel and accommodation in PNG. The consumer price index (CPI) of PNG is the best available measure of the prices of food, travel and accommodation in PNG. Moreover, a long time-series data on the CPI is readily available for modelling



purposes. Hence, the CPI has been used as own-price variable in the travel demand models.

### **Cross-prices or substitute prices (Prices of food, travel and accommodation in competitive destinations)**

A rational traveller is expected to compare the prices of holidaying at different destinations including domestic destinations in his/her own country and choose one that maximises his/her pleasure with respect to his/her situational constraints such as income, health and travel time. In other words, travellers are likely to substitute one destination for another. Therefore, the prices of food, accommodation and travel in competitive destinations need to be included in a travel demand model to obtain relatively accurate tourism forecasts. In economic term, these prices are referred as cross-prices (or substitute prices) and they measure the substitution between two or more competitive destinations.

The closest competitive destinations for PNG appear to be the domestic destinations of source countries and destinations around PNG such as Solomon Islands and Vanuatu. Therefore, the prices of food, accommodation and travel in these destinations have been included as cross-price variables to account for the influence of substitute prices on the number of visitor arrivals to PNG. The consumer price indices of competitive destinations are used as the prices of food, travel and accommodation in those destinations.

### **Exchange rate**

Foreign currency exchange rate is another important economic factor that determines international travel demand in a destination. The number of visitor arrivals to PNG is expected to increase (decrease) with the depreciation (appreciation) of Kina. Therefore, exchange rate variable has been included in the travel demand models.

### **Technological development**

Technological development has positively influenced international travel demand for the last three decades. The development of aircraft technology has sufficiently improved the fuel efficiency and carrying capacity of airlines and reduced travel time. As a result, travel cost per passenger per kilometre has substantially declined, making international travel relatively affordable.

Similarly, the development of internet and teleconferencing systems appears to have positively affected international travel in recent times, especially travel for business purposes. Hence, it is important to include a technological variable to account for its influence on international travel demand. The technological variable is specified in terms of time trend in the travel demand models.

## **2.2.2 Qualitative factors**

In this study, model based tourism forecasts were evaluated and adjusted for qualitative factors and other recent developments in the tourism industry. The adjustments were made based on information gathered from the TPA, the tourism industry of PNG and tourism specialists in source markets.

Model based tourism forecasts were adjustments for the following qualitative factors.

### **Tourism promotion expenditure**

In recent times, many countries have allocated a significant amount of their resources to promote tourism in international markets. In countries like Fiji, Australia, New Zealand and USA, the number of international visitor arrivals has increased with an increase in tourism promotion expenditure. Therefore, such expenditure needs to be included in a forecasting model of international travel. However, a long time-series data on tourism promotion expenditure incurred by both the Government and private sector of PNG are not available at this point of time. Hence, the influence of tourism promotion expenditure is qualitatively included in tourism forecasts.

### **Attractiveness**

Attractiveness is an important factor that motivates tourists to visit a destination. However, it is difficult to quantify the attractiveness of a destination to include it in econometric models. This is largely due to the fact that attractiveness is a function of several attributes such as clean beach, high mountains, historical sites, traditional culture, scenery and friendliness of people. These attributes are difficult to be measured in quantitative terms in order to include them in econometric models.

In this study, the influence of the attractiveness of PNG on international travel demand has been qualitatively incorporated in tourism forecasts.

### **Location**

Location is also an important factor that influences the number of visitor arrivals to a destination. Among two equally attractive destinations, a holidaymaker is likely to choose the nearest destination. This is because travel cost is positively related to travel distance. Nearer a destination is, it is less costly to travel to that destination. Hence, tourism forecasts must take location into account. In this study, the influence of location factor is qualitatively adjusted into tourism forecasts.

### **Air services**

PNG is physically isolated from its major source markets such as Australia, New Zealand, Japan, USA and UK, and it lacks well-developed road linkages to many of its destinations. As a result, most visitors use air services to come to PNG and to move from one destination to another within PNG. Hence, both international and domestic air services are vital for the growth of the tourism sector in PNG. In this report, the influence of international and domestic air services is qualitatively incorporated in tourism forecasts.

### Political stability

Political stability is essential to attract international tourists to a destination. Travellers are less likely to visit a destination where there is political unrest causing a problem of law and order. They simply do not want to put their lives at risk. Lebanon's once thriving tourist industry has been severely affected by the civil war and its conflict with neighbouring countries such as Syria and Israel. Similarly, Fiji's inbound tourism sector suffered a significant loss in 1987 due to the political disturbance in the country. In recent years, tourism in the US and Indonesia suffered significantly following the September 11 incident in New York and the Bali bombings.

The influence of law and order on visitor arrivals to PNG has been qualitatively included in this study.

## 2.3 Econometric travel demand models

As mentioned earlier, econometric travel demand models have been used to forecast visitor arrivals to PNG. The models depict the underlying relationship between visitor numbers and quantitative driving factors. Since these models are specified in a double logarithmic linear functional form, they are easy to estimate and provide superior fit and the estimated parameters can be directly interpreted as elasticities. Moreover, the models have been previously used to develop TPA tourism forecasts (TPA 1999, 2002 and 2003) and in many other empirical studies of tourism demand, such as Loeb (1982), Witt and Witt (1992), Skene (1993), Kulendran (1995) and Hamal (1996a, 1996b, 1997 and 1998). The models have been developed by the purpose of visit as presented below.

- (1) 
$$\log TOT_{jt} = \alpha_{0j} + \alpha_{1j} \log Y_{jt} + \alpha_{2j} \log P_t + \alpha_{3j} \log Q_{jt} + \alpha_{4j} \log EX_{jt} + \alpha_{5j} T_t + u_{\alpha jt}$$
- (2) 
$$\log BUS_{jt} = \beta_{0j} + \beta_{1j} \log Y_{jt} + \beta_{2j} \log P_t + \beta_{3j} \log Q_{jt} + \beta_{4j} \log EX_{jt} + \beta_{5j} T_t + u_{\beta jt}$$
- (3) 
$$\log HOL_{jt} = \gamma_{0j} + \gamma_{1j} \log Y_{jt} + \gamma_{2j} \log P_t + \gamma_{3j} \log Q_{jt} + \gamma_{4j} \log EX_{jt} + \gamma_{5j} T_t + u_{\gamma jt}$$
- (4) 
$$\log VFR_{jt} = \theta_{0j} + \theta_{1j} \log Y_{jt} + \theta_{2j} \log P_t + \theta_{3j} \log Q_{jt} + \theta_{4j} \log EX_{jt} + \theta_{5j} T_t + u_{\theta jt}$$
- (5) 
$$\log OTH_{jt} = \lambda_{0j} + \lambda_{1j} \log Y_{jt} + \lambda_{2j} \log P_t + \lambda_{3j} \log Q_{jt} + \lambda_{4j} \log EX_{jt} + \lambda_{5j} T_t + u_{\lambda jt}$$

where  $TOT_{jt}$ ,  $BUS_{jt}$ ,  $HOL_{jt}$ ,  $VFR_{jt}$  and  $OTH_{jt}$  are respectively per capita total, business, holiday, VFR and other visitor arrivals from the  $j$ th country in period  $t$ ;  $Y_{jt}$  is per capita

real income in the  $j$ th country in period  $t$ ;  $P_t$  is the price of food, travel and accommodation in PNG in period  $t$ ;  $Q_{jt}$  is the price of food, travel and accommodation in the  $j$ th country in period  $t$ ;  $EX_{jt}$  is the exchange rate of the  $j$ th country's currency per unit of Kina in period  $t$ ;  $T$  is a time trend variable which measures technological development over time;  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\theta$  and  $\lambda$  are regression parameters;  $u$  is the disturbance term.

Other travel includes travel made for many purposes including education and sport. Therefore, it is difficult to model other travel, because variables that explain educational travel may not explain sport travel.

The coefficient  $\alpha_1$ ,  $\beta_1$ ,  $\gamma_1$ ,  $\theta_1$  and  $\lambda_1$  are income elasticities and measure the influence of a change in real income on the number of visitor arrivals to PNG. The elasticities are expected to be positive, implying that the number of visitor arrivals to PNG increases (decreases) with an increase (decrease) in real income level in the  $j$ th country.

The coefficient  $\alpha_2$ ,  $\beta_2$ ,  $\gamma_2$ ,  $\theta_2$  and  $\lambda_2$  are own-price elasticities which are expected to be negative, suggesting that the number of visitor arrivals to PNG increases (decreases) with a decrease (increase) in the price of food, accommodation and travel in PNG.

The coefficients  $\alpha_3$ ,  $\beta_3$ ,  $\gamma_3$ ,  $\theta_3$  and  $\lambda_3$  are cross-price elasticities, which measure the effect of a change in the prices of food, accommodation and travel in competitive destinations on the number of visitor arrivals to PNG. These cross-price elasticities are expected to be positive, suggesting that a rise (fall) in the prices of food, accommodation and travel in competitive destinations such as Vanuatu and Solomon Islands will make those destinations relatively expensive than PNG. In such a circumstance, a traveller is likely to substitute PNG for Vanuatu and Solomon Islands.

The coefficient  $\alpha_4$ ,  $\beta_4$ ,  $\gamma_4$ ,  $\theta_4$  and  $\lambda_4$  are exchange rate elasticities, which indicate the change in visitor numbers due to a change in currency exchange rates.

The coefficient  $\alpha_4$ ,  $\beta_4$ ,  $\gamma_4$ ,  $\theta_4$  and  $\lambda_4$  are the elasticities of technological development. The elasticities show the magnitude of the influence of technological development on the number of visitor arrivals to PNG.

## **CHAPTER 3 DATA AND THEIR SOURCES**

### **3.1 Introduction**

As mentioned in Chapter 1, the main objective of this study is to revise TPA's tourism forecasts using both quantitative and qualitative techniques. For this, time-series data on tourism activities and factors influencing them are required to re-estimate and use the travel demand models of PNG tourism to develop tourism forecasts. This chapter discusses the nature and sources of data that are required to estimate the travel demand models.

### **3.2 Data**

Data that were used to re-estimate the travel demand models for forecasting purposes are as follows:

- Number of visitor arrivals by purpose of visit and source market;
- Population by source market;
- GDP by source and destination markets;
- Consumer price indices by source and destination markets;
- Airfare between source markets and PNG;
- Exchange rate by source market;
- Average length of stay by source market; and
- Average tourism expenditure by source market.

In this study, annual data were used to estimate travel demand models because they are readily available and they do not require a seasonal adjustment as in the case of quarterly and monthly data.

Information on qualitative factors, such as tourism marketing and promotion initiatives, tourism expenditure, attractiveness and location of destinations, air services, new development in the tourism sector and political stability, are also required to make an adjustment to model based forecasts to account for their influence on tourism forecasts.

### **3.3 Data sources**

Data were gathered from both primary and secondary sources. Data on qualitative factors were obtained from primary sources, whereas time-series data on visitor arrivals, visitor days, visitor expenditure and economic variables were obtained from secondary sources. The primary sources are the managers of the public and private tourism

organisations in PNG and tourism specialists in major source markets. The secondary sources are national and international organisations that publish tourism and economic data.

The primary and secondary sources are respectively listed in sections 3.3.1 and 3.3.2.

### **3.3.1 Primary sources**

Information on the qualitative factors were obtained from research and through consultation with tourism organisations in both public and private sectors. During the preparation of the first issue of TPA's tourism forecasting report in 1999, the consultant of the initial study was provided an opportunity to meet the managers and directors of major hotels, resort and tour companies in major holiday destinations outside Port Moresby. For this, a field trip was organised by the Tourism Promotion Authority for the consultant to meet the individuals listed below for the collection of valuable information for forecasting purposes.

It is recommended that such a field trip for the research team of TPA needs to be repeated while updating the TPA tourism forecasts in the future as the last filed trip was done eight and half years ago and many changes have been taken place in the tourism industry since then. Direct consultations with the managers and directors of the tourism related government agencies and the tourism industry will provide the research team to gain first-hand knowledge of new developments in the tourism industry and understand their responses to the changes in the industry.

The following individuals were consulted by the consultant during the field trip in 1999:

Research Team

PNG Tourism Promotion Authority, Port Moresby, NCD.

Marketing Manager

PNG Tourism Promotion Authority, Port Moresby, NCD.

Marketing Manager

Air Niugini, Boroko, NCD.

Mr. Collin Lyttle

General Manager

Qantas Airways Ltd, Port Moresby, NCD.

Ms. Karen Avis

Manager

Flightwest Airlines, Port Moresby, NCD.

Mr. Andrew Robertson  
General Manager  
Islander Travelodge, Boroko, NCD.

Mr. John Belinger  
Manager  
Madang Resort Hotel, Madang, Madang Province.

Mr. Charlie Edmunds  
Manager  
Jais Aben Resort, Madang, Madang Province.

Mr. Dan Cassell  
Manager  
Madang Lodge, Madang, Madang Province.

Mr. Andrew Fage  
Manager  
Coastwatchers, Hotel, Madang, Madang Province.

Mr. Bob Bates  
Managing Director  
Trans Niugini Tours, Mt. Hagen, Western Highlands Province.

Mr. Max Benjamin  
Managing Director  
Walindi Plantation, Kimbe, West New Britain Province.

### **3.3.2 Secondary sources**

The secondary data sources are as follows:

#### **Short-term Visitor Arrival Report** (various issues)

The PNG Tourism Promotion Authority  
PO Box 1291, Port Moresby, NCD, PNG.  
Tel: (675) 320 0211  
Fax: (675) 320 0223  
Email: [tourismpng@dg.com.pg](mailto:tourismpng@dg.com.pg)  
Internet: <http://www.paradiselive.org.pg>

#### **Visitor Survey Report** (various issues)

The PNG Tourism Promotion Authority  
PO Box 1291, Port Moresby, NCD, PNG.  
Tel: (675) 320 0211  
Fax: (675) 320 0223

Email: [tourismpng@dg.com.pg](mailto:tourismpng@dg.com.pg)  
Internet: <http://www.paradiselive.org.pg>

### **World Tables**

The World Bank  
1818H Street, N.W., Washington, D.C. 20433, USA.

### **Main Economic Indicators** (various issues)

Organisation for Economic Cooperation and Development (OECD)  
OECD Centre Tokyo, Landic Akasaka Building  
2-3-4 Akasaka, Minato-Ku, Tokyo 107-0052.  
Tel: (81-3) 3586 2016  
Fax: (81-3) 3584 7929  
Email: [Centre@oecdtkyoo.org](mailto:Centre@oecdtkyoo.org)  
Internet: [www.oecdtkyoo.org](http://www.oecdtkyoo.org)

### **Quarterly Economic Bulletin** (various issues)

Bank of Papua New Guinea  
PO Box 121, Port Moresby, NCD, PNG.  
Tel: (675) 322 7200

### **Yearbook of Tourism Statistics** (various issues)

The World Tourism Organisation (WTO)  
Capitan Haya - 42,  
28020 Madrid, Spain.  
Tel: (34) 91 567 8100  
Fax: (34) 91 567 8218  
Email: [omtweb@world-tourism.org](mailto:omtweb@world-tourism.org)  
Internet: [www.world-tourism.org](http://www.world-tourism.org)

### **World Economic Outlook**

International Monetary Fund  
700 19<sup>th</sup> Street, N.W., Washington, D.C. 20431, USA.  
Tel: (202) 623 7430  
Fax: (202) 623 7201  
Internet: [www.imf.org](http://www.imf.org)

### **OECD Economic Outlook,**

Organisation for Economic Cooperation and Development (OECD)  
2, rue André Pascal, F-75775 Paris Cedex 16, France.  
Tel: (33) 145 248 200  
Fax: (33) 145 2 48 500  
Internet: [www.OECD.org](http://www.OECD.org)



## CHAPTER 4 ESTIMATED PARAMETERS

### 4.1 Introduction

Chapter 4 provides a discussion on the estimated parameters of the travel demand models that were used to revise TPA's tourism forecasts in this study. The models were re-estimated with additional data on visitor arrivals. However, the estimated parameters were not found statistically different than those reported in TPA Tourism Forecasting Report 2007. Hence, the parameters that were used to update tourism forecasts in TPA Tourism Forecasting Report 2007 are also used to update the forecasts in this study. The parameters are presented again in this report without any changes, especially to benefit new readers.

### 4.2 Estimated parameters

The estimated travel demand elasticities are presented by market and the purpose of visit in the following subsections. The goodness of model fit, which is given by R-Square value, is also presented in tables below.

#### 4.2.1 Oceania

##### Australia

The estimated parameters of the Australian travel demand models are shown in Table 4.1. According to these parameters, business and holiday arrivals from Australia are positively influenced by income and substitute price and negatively influenced by own-price and exchange rate. On the other hand, VFR arrivals are positively affected by income and negatively affected by own-price; and other arrivals are adversely affected by own-price and exchange rate.

**Table 4.1: Estimated parameters by purpose of visit model: Australia**

Parameters	Business	Holiday	VFR	Other	Total
Intercept	0.902	3.410	7.282	17.211	6.021
Income	2.848	3.860	0.121	NS	1.373
Own-price	-0.884	-2.533	-0.475	-2.329	-0.712
Cross-price	0.289	0.663	NS	NS	0.099
Exchange rate	-0.697	-1.430	NS	-1.703	0.687

NS = Variable is not found significant in the model to explain variation in travel demand.

The estimated income elasticity of Australian business travel implies that a one per cent increase in Australian income level will increase Australian business arrivals by 2.8 per cent. Similarly, a rise of 1 per cent in the price of food, travel and accommodation in

PNG will reduce the number of Australian business arrivals by 0.9 per cent. A one per cent rise in the price of food, travel and accommodation in substitute destinations will increase Australian business arrivals by 0.3 per cent. A one per cent depreciation in Kina will result in a 0.7 per cent increase in Australian business arrivals. A recent depreciation 3.3 per cent of Kina against the Australian dollar means an increase of 2.3 per cent increase in business arrivals, 4.6 per cent increase in holiday arrivals and 5.6 per cent increase in other arrivals.

### **New Zealand (NZ)**

The estimated parameters of the New Zealand travel demand models are shown in Table 4.2. Business arrivals from NZ are mainly influenced by income. A one per cent rise in income level in New Zealand will increase business arrivals from that country by 1.6 per cent.

**Table 4.2: Estimated parameters by purpose of visit model: New Zealand**

<b>Parameters</b>	<b>Business</b>	<b>Holiday</b>	<b>VFR</b>	<b>Other</b>	<b>Total</b>
Intercept	-5.796	6.017	3.043	3.987	-0.248
Income	1.561	NS	NS	NS	0.120
Own-price	NS	-3.065	-1.068	-2.655	-0.125
Cross-price	NS	1.595	NS	1.155	NS
Exchange rate	-0.013	-2.156	-0.152	NS	-0.038

NS = Variable is not found significant in the model to explain variation in travel demand.

Holiday arrivals from NZ is positively influenced by cross-price and negatively by own-price and exchange rate. Own-price and cross-price are also found to be the major driving factors for other arrivals from NZ.

### **Other Oceania**

Other Oceania includes many countries such as Fiji, Solomon Islands, Vanuatu and Tonga. The multiple regression model could not be used in the case of Other Oceania due to the lack of a long time-series data on economic variables in these countries. Hence, the time-trend model has been used to forecast visitor arrivals from Other Oceania. However, the model could not be estimated by the purpose of visit, as visitor arrival data by the purpose of visit are not readily available for Other Oceania for modelling purposes.

The estimated parameters of the Other Oceania travel demand model are shown in Table 4.3. The elasticity of time trend variable (technology) indicates that arrivals from Other Oceania increases by 0.02 per cent a year.

## **4.2.2 Asia**

### **Japan**

The estimated parameters of the Japanese travel demand models are shown in Table 4.4. Income and own- and cross-prices are the major factors influencing visitor arrivals from Japan. A one per cent increase in the Japanese income level will result in a 3.3 per cent

increase in holiday arrivals to PNG. The negative cross-price elasticity simply indicate that an increase in the prices of other household consumption items will lead to a decline in the number of Japanese visitors to PNG. This is because the cross-price variable is in fact the Japanese consumer price index.

**Table 4.3: Estimated parameters of total visitor arrival models: Other Oceania, Other Asia, Other Europe and the Rest of World**

Parameters	Other Oceania	Other Asia	Other Europe	Rest of World
Intercept	6.898	7.783	7.204	5.959
Income	NS	NS	NS	NS
Own-price	NS	NS	NS	NS
Cross-price	NS	NS	NS	NS
Exchange rate	NS	NS	NS	NS
Technology	0.017	0.056	0.021	-0.006

NS = Variable is not found significant in the model to explain variation in travel demand.

**Table 4.4: Estimated parameters by purpose of visit model: Japan**

Parameters	Business	Holiday	VFR	Other	Total
Intercept	14.681	27.756	18.882	92.130	27.846
Income	0.394	3.316	3.104	9.692	1.879
Own-price	-0.403	-0.216	-0.364	-2.682	-0.537
Cross-price	-2.040	-5.299	-4.562	-19.300	-4.528
Exchange rate	-0.372	-0.810	NS	NS	-0.719

NS = Variable is not found significant in the model to explain variation in travel demand.

### Other Asia

As in the case of Other Oceania, the multiple regression models could not be estimated in the case of Other Asia due to the lack of a long time-series data on tourism activities. Rather, the time-trend model was estimated and used to forecast visitor arrivals from Other Asia.

The estimated parameters of the Other Asian travel demand model are also shown in Table 4.3. The estimated elasticity of time trend variable implies that visitor arrivals from Other Asia with all other factors remaining the same will increase by 0.1 per cent annually.

## 4.2.3 North America

### Canada

The estimated parameters of the Canadian travel demand models are presented in Table 4.5. Income is the main factor influencing business, holiday and VFR travel; whereas own- and cross-prices are the main factors influencing other travel.

A one per cent increase in Canadian income level will result in a 6.6 per cent increase in business arrivals, 4.5 per cent increase in holiday arrivals and 2.3 per cent increase in VFR travel.

**Table 4.5: Estimated parameters by purpose of visit model: Canada**

Parameters	Business	Holiday	VFR	Other	Total
Intercept	16.584	19.119	11.742	-4.917	6.819
Income	6.571	4.525	2.295	NS	2.529
Own-price	-2.208	-1.356	-1.772	-1.677	-0.797
Cross-price	3.131	NS	-0.376	1.272	0.637
Exchange rate	NS	NS	NS	NS	NS

NS = Variable is not found significant in the model to explain variation in travel demand.

### United States of America

The estimated parameters of the US travel demand models are presented in Table 4.6. Business arrivals from the USA are mainly influenced by their own- and cross-prices; whereas holiday and VFR arrivals from the USA are driven by the US income level. Other arrivals are influenced by own-price variable only.

**Table 4.6: Estimated parameters by purpose of visit model: USA**

Parameters	Business	Holiday	VFR	Other	Total
Intercept	-3.394	-1.577	0.440	-0.021	6.402
Income	NS	1.255	1.376	NS	2.225
Own-price	-1.258	-0.487	-0.813	-0.228	-0.597
Cross-price	2.319	NS	NS	NS	NS
Exchange rate	-0.682	NS	NS	NS	NS

NS = Variable is not found significant in the model to explain variation in travel demand.

A one per cent rise in the US income level will increase holiday and VFR arrivals respectively by 1.3 and 1.4 per cent.

## 4.2.4 Europe

### Germany

The estimated parameters of the German travel demand models are shown in Table 4.7. Income and own-price are the main factors influencing holiday, VFR and other arrivals, whereas business arrivals are influenced by own-price and cross-price variables. A one per cent increase in the European income level will result in a 1.4 per cent increase in holiday arrivals, 1.0 per cent increase in VFR arrivals and 7.7 per cent increase in other arrivals. The higher income elasticity of Other travel is largely due to a smaller base of Other travel.

## United Kingdom

The estimated parameters of the UK travel demand models are given in Table 4.8. Income is the main factor influencing holiday arrivals, whereas prices are the main factors influencing business, VFR and other arrivals. A one per cent increase the UK income level will result in a 3.2 per cent increase in holiday arrivals from the UK.

**Table 4.7: Estimated parameters by purpose of visit model: Germany**

Parameters	Business	Holiday	VFR	Other	Total
Intercept	-15.777	4.588	2.511	33.719	-2.980
Income	NS	1.423	0.959	7.734	1.947
Own-price	-0.239	-0.868	-1.156	-2.935	-0.806
Cross-price	2.344	NS	NS	NS	0.822
Exchange rate	NS	-0.453	NS	NS	-0.063

NS = Variable is not found significant in the model to explain variation in travel demand.

**Table 4.8: Estimated parameters by purpose of visit model: United Kingdom**

Parameters	Business	Holiday	VFR	Other	Total
Intercept	-6.994	15.27	-18.045	-25.227	-4.284
Income	NS	3.200	NS	NS	NS
Own-price	-2.500	-1.803	NS	NS	-1.453
Cross-price	3.056	0.734	3.312	4.986	1.651
Exchange rate	-0.809	-0.428	NS	NS	-0.332
Time Trend	NS	NS	-0.200	-0.342	NS

NS = Variable is not found significant in the model to explain variation in travel demand.

## 4.2.5 Rest of World

The estimated parameters of the Rest of the World travel demand models are given in Table 4.3. Visitor arrivals from the Rest of the World are marginally but inversely influenced by time trend variable. However, other qualitative factors as well as the economic outlook for Africa and South America suggest that the number of visitors from this market will increase over the forecast period.



## **CHAPTER 5 ECONOMIC ASSUMPTIONS**

### **5.1 Introduction**

In this chapter, economic assumptions that were used to update tourism forecasts in this report are discussed in details. The assumptions were obtained from international organizations that are specialised in forecasting economic conditions of the world. The economic assumptions and their sources are presented respectively in sections 5.2 and 5.3.

### **5.2 Economic assumptions**

The assumptions for GDP, CPI, exchange rate and population are presented by major source market in the following subsections.

#### **5.2.1 Oceania**

##### **Australia**

Australia is PNG's largest individual source market. Hence, its economic performance directly influences the PNG's inbound tourism.

The Australian economy is expected to grow annually by 2.3 per cent in the short-run (next five years) and 2.6 per cent in the long-run (next ten years) (Table 5.1). The Australian inflation (CPI) is forecast to increase annually by 2.5 and 2.4 per cent in the short-run and long-run. A strong economic growth and a rise in the CPI mean more Australians will be motivated to visit PNG over the next ten years.

In recent months, the Australian currency has appreciated strongly against the US dollar. This could be one of the reasons for the growth (8 per cent) in the number of Australian visitor arrivals to PNG in the last eight months. However, the Australian dollar is not expected to remain strong over the forecast period. Rather, it will slightly depreciate against the US dollar and Kina in 2010 and onwards. This will have some adverse impact on the number of visitors from Australia.

Population of Australia is forecast to increase by 1.5 and 1.4 per cent a year in both short-run and long-run. This will have a positive influence on the number of Australians visiting PNG.

**Table 5.1: Growth rates of macroeconomic variables: Australia**

Year	Real GDP (% change)	CPI (% change)	Exchange rate A\$/(US\$)	Population (% change)
2005	2.8	2.7	1.3	1.4
2006	2.8	3.5	1.4	1.5
2007	4.0	2.3	1.2	1.8
2008	2.3	4.4	1.1	1.8
<b>2009</b>	<b>0.1</b>	<b>1.8</b>	<b>1.2</b>	<b>1.8</b>
<b>2010</b>	<b>1.3</b>	<b>2.3</b>	<b>1.2</b>	<b>1.5</b>
<b>2011</b>	<b>3.2</b>	<b>3.2</b>	<b>1.2</b>	<b>1.4</b>
<b>2012</b>	<b>3.2</b>	<b>2.8</b>	<b>1.2</b>	<b>1.4</b>
<b>2013</b>	<b>3.6</b>	<b>2.3</b>	<b>1.2</b>	<b>1.4</b>
<b>2014</b>	<b>3.8</b>	<b>1.9</b>	<b>1.2</b>	<b>1.4</b>
<b>2015</b>	<b>2.7</b>	<b>2.3</b>	<b>1.2</b>	<b>1.3</b>
<b>2016</b>	<b>2.3</b>	<b>2.7</b>	<b>1.2</b>	<b>1.3</b>
<b>2017</b>	<b>3.0</b>	<b>2.2</b>	<b>1.2</b>	<b>1.3</b>
<b>2018</b>	<b>3.3</b>	<b>2.3</b>	<b>1.2</b>	<b>1.3</b>
<b>Average annual growth rate</b>				
<b>2008-2013</b>	<b>2.3</b>	<b>2.5</b>	<b>1.2</b>	<b>1.5</b>
<b>2008-2018</b>	<b>2.6</b>	<b>2.4</b>	<b>1.2</b>	<b>1.4</b>

\*Numbers in bold are forecasts.

### New Zealand

The economic performance of New Zealand is forecast to remain positive over the next ten years. The real GDP is forecast to increase annually by 2.3 per cent between 2008 and 2018 (Table 5.2). The CPI is expected to increase annually by 1.9 per cent over the same period.

**Table 5.2: Growth rates of macroeconomic variables: New Zealand**

Year	Real GDP (% change)	CPI (% change)	Exchange rate (NZ\$/US\$)	Population (% change)
2005	4.8	2.3	1.5	1.4
2006	2.2	3.0	1.4	1.3
2007	1.5	3.4	1.6	1.2
2008	3.2	2.4	1.3	1.2
<b>2009</b>	<b>0.3</b>	<b>4.0</b>	<b>1.7</b>	<b>0.9</b>
<b>2010</b>	<b>-2.0</b>	<b>1.3</b>	<b>1.5</b>	<b>1.1</b>
<b>2011</b>	<b>0.5</b>	<b>1.1</b>	<b>1.5</b>	<b>1.1</b>
<b>2012</b>	<b>2.4</b>	<b>1.7</b>	<b>1.5</b>	<b>1.1</b>
<b>2013</b>	<b>3.1</b>	<b>2.1</b>	<b>1.5</b>	<b>1.1</b>
<b>2014</b>	<b>3.2</b>	<b>2.0</b>	<b>1.5</b>	<b>1.1</b>
<b>2015</b>	<b>3.2</b>	<b>2.1</b>	<b>1.5</b>	<b>1.1</b>
<b>2016</b>	<b>3.2</b>	<b>2.1</b>	<b>1.5</b>	<b>1.1</b>
<b>2017</b>	<b>3.2</b>	<b>2.1</b>	<b>1.5</b>	<b>1.1</b>
<b>2018</b>	<b>3.2</b>	<b>2.1</b>	<b>1.5</b>	<b>1.1</b>
<b>Average annual growth rate</b>				
<b>2008-2013</b>	<b>1.4</b>	<b>1.6</b>	<b>1.5</b>	<b>1.1</b>
<b>2008-2018</b>	<b>2.3</b>	<b>1.9</b>	<b>1.5</b>	<b>1.1</b>

\*Numbers in bold are forecasts.



The New Zealand dollar is expected to appreciate against the US dollar and Kina in 2010 and depreciate over the remaining years of the forecast period. This will have a positive impact on the number of visitors from New Zealand in 2010 and a negative impact during the remaining years of the forecast period.

Population is expected to increase by 1.1 per cent a year in the next ten years. This will have a positive influence on the number of visitor arrivals from New Zealand.

### Other Oceania

Other Oceania includes many countries such as Fiji, Solomon Islands, Vanuatu and Tonga. Hence, it is difficult to aggregate economic variables of all these countries in order to include them as one variable in an econometric model of travel demand of these countries. Moreover, a long time-series data on economic variables is not available to run the econometric models. In this study, the influence of economic variables on visitor arrivals from Other Oceania was qualitatively adjusted in tourism forecasts. This is the reason why a table containing the economic outlook for Other Oceania has not been presented in this section.

### Papua New Guinea

The economy of PNG is performing well in recent years. The real GDP of PNG grew by 2.6 per cent in 2006, 6.5 per cent in 2007 and 7.0 per cent in 2008. It is expected to grow by 2.8 per cent a year over the next ten years (Table 5.3). A strong economic growth implies that PNG could afford to develop tourism infrastructure and increase its spending on tourism marketing and promotion initiatives in overseas markets.

**Table 5.3: Growth rates of macroeconomic variables: Papua New Guinea**

Year	Real GDP (% change)	CPI (% change)	Exch rate (US\$/Kina)
2005	3.4	1.7	0.50
2006	2.6	2.3	0.40
2007	6.5	0.9	0.36
2008	7.0	10.7	0.37
<b>2009</b>	<b>3.9</b>	<b>8.2</b>	<b>0.36</b>
<b>2010</b>	<b>3.7</b>	<b>5.0</b>	<b>0.36</b>
<b>2011</b>	<b>3.3</b>	<b>4.6</b>	<b>0.36</b>
<b>2012</b>	<b>3.0</b>	<b>4.2</b>	<b>0.36</b>
<b>2013</b>	<b>2.4</b>	<b>3.7</b>	<b>0.36</b>
<b>2014</b>	<b>2.4</b>	<b>3.7</b>	<b>0.36</b>
<b>2015</b>	<b>2.4</b>	<b>3.7</b>	<b>0.36</b>
<b>2016</b>	<b>2.4</b>	<b>3.7</b>	<b>0.36</b>
<b>2017</b>	<b>2.4</b>	<b>3.7</b>	<b>0.36</b>
<b>2018</b>	<b>2.4</b>	<b>3.7</b>	<b>0.36</b>
<b>Average annual growth rate</b>			
<b>2008-2013</b>	<b>3.3</b>	<b>5.2</b>	
<b>2008-2018</b>	<b>2.8</b>	<b>4.5</b>	

\*Numbers in bold are forecasts.

PNG appears to have succeeded to control inflation. The CPI has been reduced to 2.3 per cent in 2006, 0.9 per cent in 2007 and 10.7 per cent in 2008. Moreover, it is forecast

to increase by 4.5 per cent a year during the next ten years. A lower CPI means a lower cost of travel and accommodation in PNG which in turn makes PNG monetarily more attractive destination.

On average, the exchange rate between Kina and the US dollar will remain at US\$0.036 per Kina during the entire forecast period. This will have a neutral influence on the number of overseas visitor arrivals to PNG.

## 5.2.2 Asia

### Japan

The performance of the Japanese economy has remained good in recent years. The real GDP of Japan grew by 2.8 per cent in 2006, 3.0 per cent in 2007 and lower at 0.7 per cent in 2008 due to the current economic recession, and it is expected to increase by 1.7 per cent a year over the next ten years (Table 5.4).

Although the CPI of Japan was lower in 2008, it is expected to rise by 1.6 per cent a year in the next ten years. A rise in the CPI will motivate the Japanese holiday makers to switch their domestic destinations for overseas destinations including PNG.

The yen will remain slightly weak against the US dollar over the forecast period. This will have a small negative influence on PNG tourism.

**Table 5.4: Growth rates of macroeconomic variables: Japan**

Year	Real GDP (% change)	CPI (% change)	Exch rate (Yen/US\$)	Population (% change)
2005	1.9	2.0	0.5	0.4
2006	2.8	2.3	0.6	0.3
2007	3.0	2.3	0.5	0.3
2008	0.7	3.6	0.7	0.2
<b>2009</b>	<b>-4.1</b>	<b>1.5</b>	<b>0.6</b>	<b>0.3</b>
<b>2010</b>	<b>-0.4</b>	<b>0.8</b>	<b>0.6</b>	<b>0.2</b>
<b>2011</b>	<b>2.1</b>	<b>1.4</b>	<b>0.6</b>	<b>1.1</b>
<b>2012</b>	<b>2.9</b>	<b>1.6</b>	<b>0.6</b>	<b>1.2</b>
<b>2013</b>	<b>2.8</b>	<b>1.7</b>	<b>0.6</b>	<b>1.2</b>
<b>2014</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2015</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2016</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2017</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2018</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>Average annual growth rate</b>				
<b>2008-2013</b>	<b>0.7</b>	<b>1.4</b>	<b>0.6</b>	<b>1.0</b>
<b>2008-2018</b>	<b>1.7</b>	<b>1.6</b>	<b>0.6</b>	<b>1.1</b>

\*Numbers in bold are forecasts.

## Other Asia

As in the case of Other Oceania, the influence of economic variables on Other Asian arrivals was qualitatively adjusted in tourism forecasts. Hence, a table containing the economic outlook for Other Oceania has not been presented in this section.

## 5.2.3 North America

### Canada

The Canadian real GDP and CPI are forecast to rise respectively by 2.1 and 1.7 per cent a year over the next ten years (Table 5.5). The positive growth in the real GDP and CPI will encourage more Canadians to visit PNG over the forecast period.

Canadian dollar is expected to appreciate against the US dollar. This will have a positive impact on the number of Canadian visitors to PNG.

The Canadian population is projected to increase by 0.7 per cent a year in the next ten years. This will have a positive influence on the number of Canadian arrivals to PNG.

**Table 5.5: Growth rates of macroeconomic variables: Canada**

Year	Real GDP (% change)	CPI (% change)	Exchange rate (Can\$/US\$)	Population (% change)
2005	2.8	1.9	1.2	1.0
2006	3.1	1.9	1.1	1.0
2007	2.7	2.1	1.0	1.0
2008	0.5	2.4	1.2	1.1
<b>2009</b>	<b>-2.5</b>	<b>0.0</b>	<b>1.1</b>	<b>1.0</b>
<b>2010</b>	<b>1.2</b>	<b>0.5</b>	<b>1.1</b>	<b>0.7</b>
<b>2011</b>	<b>2.5</b>	<b>1.4</b>	<b>1.1</b>	<b>0.7</b>
<b>2012</b>	<b>3.8</b>	<b>2.1</b>	<b>1.1</b>	<b>0.7</b>
<b>2013</b>	<b>3.4</b>	<b>2.4</b>	<b>1.1</b>	<b>0.7</b>
<b>2014</b>	<b>2.5</b>	<b>2.1</b>	<b>1.1</b>	<b>0.7</b>
<b>2015</b>	<b>2.5</b>	<b>2.1</b>	<b>1.1</b>	<b>0.7</b>
<b>2016</b>	<b>2.5</b>	<b>2.1</b>	<b>1.1</b>	<b>0.7</b>
<b>2017</b>	<b>2.5</b>	<b>2.1</b>	<b>1.1</b>	<b>0.7</b>
<b>2018</b>	<b>2.5</b>	<b>2.1</b>	<b>1.1</b>	<b>0.7</b>
<b>Average annual growth rate</b>				
<b>2008-2013</b>	<b>1.7</b>	<b>1.3</b>	<b>1.1</b>	<b>0.8</b>
<b>2008-2018</b>	<b>2.1</b>	<b>1.7</b>	<b>1.1</b>	<b>0.7</b>

\*Numbers in bold are forecasts.

### United States of America

The economy of the USA has been slowly weakening in recent years. The real GDP of US increased by 3.3 per cent in 2006, 2.0 per cent in 2007 and 1.1 per cent in 2008 (Table 5.6). It is expected to increase by 2.0 per cent a year over the next ten years. Similarly, the CPI is forecast to increase annually by 1.5 per cent during the entire forecast period. The positive economic growth and a rise in CPI will encourage more Americans to visit PNG in the next ten years.

The US population is forecast to grow by 1.0 per cent a year over the next ten years. This will have a positive impact on the US visitor arrivals to PNG.

**Table 5.6: Growth rates of macroeconomic variables: USA**

<b>Year</b>	<b>Real GDP (% change)</b>	<b>CPI (% change)</b>	<b>Population (% change)</b>
2005	3.2	3.4	1.2
2006	3.3	3.1	1.1
2007	2.0	2.9	1.1
2008	1.1	3.8	0.9
<b>2009</b>	<b>-2.8</b>	<b>-0.9</b>	<b>1.0</b>
<b>2010</b>	<b>0.0</b>	<b>-0.1</b>	<b>1.0</b>
<b>2011</b>	<b>3.5</b>	<b>0.7</b>	<b>1.0</b>
<b>2012</b>	<b>3.6</b>	<b>1.7</b>	<b>1.0</b>
<b>2013</b>	<b>3.3</b>	<b>2.1</b>	<b>1.0</b>
<b>2014</b>	<b>2.4</b>	<b>2.2</b>	<b>1.0</b>
<b>2015</b>	<b>2.4</b>	<b>2.2</b>	<b>1.0</b>
<b>2016</b>	<b>2.4</b>	<b>2.2</b>	<b>1.0</b>
<b>2017</b>	<b>2.4</b>	<b>2.2</b>	<b>1.0</b>
<b>2018</b>	<b>2.4</b>	<b>2.2</b>	<b>1.0</b>
<b>Average annual growth rate</b>			
<b>2008-2013</b>	<b>1.5</b>	<b>0.7</b>	<b>1.0</b>
<b>2008-2018</b>	<b>2.0</b>	<b>1.5</b>	<b>1.0</b>

\*Numbers in bold are forecasts.

## 5.2.4 Europe

### Germany

The German economy is growing positively in the last three years. The real GDP of Germany grew by 2.9 per cent in 2006, 2.5 per cent in 2007 and 1.3 per cent in 2008, and it is forecast to increase by 1.0 per cent a year over the next ten years (Table 5.7). The CPI is also expected to rise by 0.4 per cent a year during the same period. An increase in real GDP and CPI will motivate more Germans to travel to PNG.

### United Kingdom

The real GDP and CPI of the United Kingdom are forecast to increase respectively by 1.0 and 0.4 per cent a year over the next ten years (Table 5.8). As a result, more UK visitors are expected to arrive in PNG over the next ten years.

### Other Europe

As in the case of Other Oceania and Other Asia, the influence of economic variables on Other European arrivals was qualitatively adjusted in tourism forecasts. Hence, a table containing the economic outlook for Other Europe has not been presented in this section.

**Table 5.7: Growth rates of macroeconomic variables: Germany**

Year	Real GDP (% change)	CPI (% change)	Exch rate (DMark/US\$)	Population (% change)
2005	0.8	1.9	1.6	-0.2
2006	2.9	1.8	1.6	-0.1
2007	2.5	2.3	1.3	-0.1
2008	1.3	2.8	1.4	-0.1
<b>2009</b>	<b>-5.6</b>	<b>0.1</b>	<b>1.4</b>	<b>-0.1</b>
<b>2010</b>	<b>-1.0</b>	<b>-0.4</b>	<b>1.4</b>	<b>-0.1</b>
<b>2011</b>	<b>1.5</b>	<b>0.1</b>	<b>1.4</b>	<b>-0.1</b>
<b>2012</b>	<b>1.8</b>	<b>0.3</b>	<b>1.4</b>	<b>-0.1</b>
<b>2013</b>	<b>2.0</b>	<b>0.5</b>	<b>1.4</b>	<b>-0.1</b>
<b>2014</b>	<b>2.2</b>	<b>0.7</b>	<b>1.4</b>	<b>-0.1</b>
<b>2015</b>	<b>2.2</b>	<b>0.7</b>	<b>1.4</b>	<b>-0.1</b>
<b>2016</b>	<b>2.2</b>	<b>0.7</b>	<b>1.4</b>	<b>-0.1</b>
<b>2017</b>	<b>2.2</b>	<b>0.7</b>	<b>1.4</b>	<b>-0.1</b>
<b>2018</b>	<b>2.2</b>	<b>0.7</b>	<b>1.4</b>	<b>-0.1</b>
<b>Average annual growth rate</b>				
<b>2008-2013</b>	<b>-0.3</b>	<b>0.1</b>	<b>1.4</b>	<b>-0.1</b>
<b>2008-2018</b>	<b>1.0</b>	<b>0.4</b>	<b>1.4</b>	<b>-0.1</b>

\*Numbers in bold are forecasts.

**Table 5.8: Growth rates of macroeconomic variables: United Kingdom**

Year	Real GDP (% change)	CPI (% change)	Exch rate (Pound/US\$)	Population (% change)
2005	1.9	2.0	0.5	<b>0.3</b>
2006	2.8	2.3	0.6	<b>0.3</b>
2007	3.0	2.3	0.5	0.2
2008	0.7	3.6	0.7	0.3
<b>2009</b>	<b>-4.1</b>	<b>1.5</b>	<b>0.6</b>	<b>0.2</b>
<b>2010</b>	<b>-0.4</b>	<b>0.8</b>	<b>0.6</b>	<b>1.1</b>
<b>2011</b>	<b>2.1</b>	<b>1.4</b>	<b>0.6</b>	<b>1.2</b>
<b>2012</b>	<b>2.9</b>	<b>1.6</b>	<b>0.6</b>	<b>1.2</b>
<b>2013</b>	<b>2.8</b>	<b>1.7</b>	<b>0.6</b>	<b>1.2</b>
<b>2014</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2015</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2016</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2017</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>2018</b>	<b>2.8</b>	<b>1.8</b>	<b>0.6</b>	<b>1.2</b>
<b>Average annual growth rate</b>				
<b>2008-2013</b>	<b>0.7</b>	<b>1.4</b>	<b>0.6</b>	<b>1.0</b>
<b>2008-2018</b>	<b>1.7</b>	<b>1.6</b>	<b>0.6</b>	<b>1.1</b>

\*Numbers in bold are forecasts.

## 5.2.5 The Rest of World

As in the case of Other Oceania, Other Asia and Other Europe, the influence of economic variables on visitor arrivals from the Rest of the World was qualitatively

adjusted in tourism forecasts. Hence, a table containing the economic outlook for the Rest of World has not been presented in this section.

### **5.3 Sources of economic assumptions**

The forecasts of economic variables, which were used to derive tourism forecasts, were obtained from the following sources:

#### **World Economic Outlook**

International Monetary Fund  
700 19<sup>th</sup> Street, N.W., Washington, D.C. 20431, USA.  
Tel: (202) 623 7430  
Fax: (202) 623 7201  
Internet: [www.imf.org](http://www.imf.org)

#### **OECD Economic Outlook,**

Organisation for Economic Cooperation and Development (OECD)  
2, rue André Pascal, F-75775 Paris Cedex 16, France.  
Tel: (33) 145 248 200  
Fax: (33) 145 2 48 500  
Internet: [www.OECD.org](http://www.OECD.org)

#### **Access Economics**

Level 1, 39 Brisbane Avenue  
Barton, ACT 2600, Australia.  
Tel: (2) 6273 1222  
Fax: (2) 6273 1223

#### **Asia Pacific Consensus Forecasts**

Consensus Economics Inc.  
53 Upper Brook Street, London W1Y 2LT, United Kingdom.  
Tel: (44) 171-491 3211  
Fax: (44) 171-409 2331

## CHAPTER 6 VISITOR ARRIVAL FORECASTS

### 6.1 Introduction

While developing forecasts of visitor arrivals, the PNG inbound market has been divided into five regions: Oceania, Asia, North America, Europe and the Rest of World. In each of these regions, countries that contribute significantly to the inbound tourism of PNG are included for modelling and forecasting purposes. In other words, forecasts of visitor arrivals were separately developed for each major individual country, and then they were added together on a regional basis to derive regional forecasts. The regional forecasts were summed over all the regions to derive total forecasts.

Countries that are included in each region are as follows:

**Oceania:** Oceania includes three individual markets: Australia, New Zealand and Other Oceania. Other Oceania includes all Oceania countries except Australia and New Zealand. The main countries that fall under Other Oceania are Fiji, Solomons and Vanuatu.

**Asia:** Asia is segmented into two major markets: Japan and Other Asia. Other Asia includes all Asian countries except Japan. The main countries that fall under Other Asia are Malaysia, Philippines, Indonesia, Singapore, Hong Kong, Thailand, India and China.

**North America:** North America includes Canada and the United States of America.

**Europe:** Europe is segmented into Germany, the United Kingdom and Other Europe. Other Europe includes all European countries except Germany and the United Kingdom. The main countries that fall under Other Europe are France, Italy and Scandinavia.

**Rest of World:** The Rest of World includes all countries that are not included in above regions. Most countries in this group are from Africa and South America.

In this report, forecasts were also derived by the purpose of visit. The travel demand models were separately estimated for each major purpose of visit.

This report presents both short-term (five years: from 2008 to 2013) and long-term (ten years: from 2008 to 2018) forecasts. The forecasts are discussed in detail in the following sections.

## **6.2 Total visitor arrivals**

The tourism outlook for PNG is promising in both short run and long run, largely due to the expected strong economic growth in PNG and its major tourism source markets, the TPA's marketing and promotion initiatives in major markets, and an expected increase in the number of Air Niugini flights on the PNG-Japan route and the commencement of Air Niugini flights to Hong Kong and Nadi since early this year, and the development of new luxury hotels in Port Moresby and the new LNG Project. The terrorist incidents around the world could cause tourists to switch their holiday destinations from high-risk destinations to low-risk destinations such as PNG. Moreover, the law and order situation in PNG has improved markedly in recent years, and the PNG Government is stable now. The stability of PNG Government is crucial for the development of the tourism sector in PNG. Since the PNG parliament has made legislative changes for a Government to continue to rule for a full term after the 2002 general election, the PNG Government has remained stable in the last five years and the re-elected Government which was re-elected in July 2007 will also remain stable for the next five years. This means no changes in Ministerial and Department Heads and, thereby, it will result PNG being a politically stable and secure destination for tourists. This will also create a favourable environment for investors in the PNG tourism sector.

In recent years, the tourism sector has become successful in getting proper recognition by the Government. This is a major achievement for the tourism sector. Tourism is now included in the Economic Category of the Government's Medium Term Development Strategy (MTDS). This implies that tourism will now be considered in the same category as Agriculture, Fisheries etc. As a result, the Government funding for the TPA and tourism industry has increased markedly to carry out additional marketing and promotion initiatives in PNG's main source markets. The new Government is also providing incentives for tourism industry in terms of tax holidays, double tax deductions, zero rated taxes, and other investment incentives in accommodation development.

The Government has developed a new ten year Tourism Master Plan and five Model Provinces Development Plans and has approved various implementation strategies to achieve a strong growth in the tourism sector in the long-term.

In recent years, TPA has been attending major travel shows including WTM, ITB, BULA Fiji, all Australian shows, TUR and MITT in Russia. It also attended BIT Milan and TTG in Italy, PATA Travel Mart and JATA World Travel Fair in Japan. In addition to these, TPA has increased its marketing activities (road shows and workshops) in Australia and Europe. These marketing activities will help TPA to promote PNG tourism at the international level.

Another important factor contributing to the growth of PNG tourism is the continuity and stability of the TPA Board and its Chief Executive Officer (CEO) and the senior management staff who have keenly focused on the implementation of the major initiatives at TPA. The CEO and staff are clearly focussed to achieve the TPA goals.



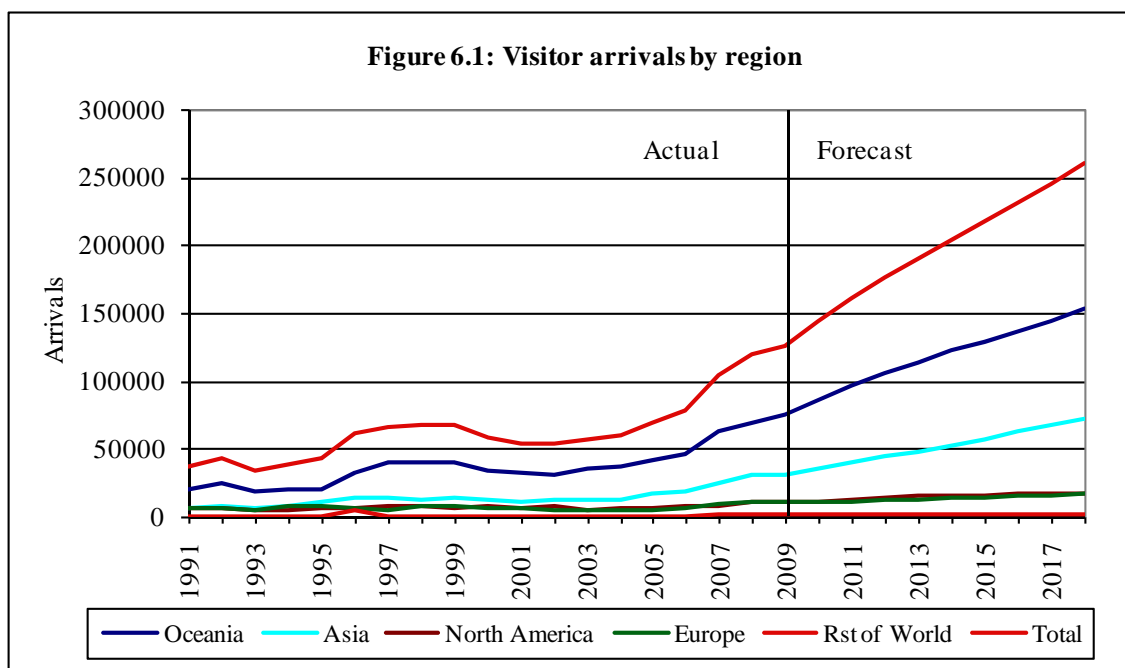
Air Niugini has increased its seat capacity by adding one F100 aircraft and leasing a new B757 to support the B767. This will create an additional demand for PNG tourism.

Further, TPA has appointed a new Marketing Representative to promote the Australian, North American and the Japanese markets, in addition to the existing representative in Europe for the European markets.

TPA has launched a new branding project to re-brand PNG at the international tourism market and also highlighting the Kokoda track which has become one of the main attractions for Australian visitors.

All above factors will positively influence international visitor arrivals to PNG. The number of total visitors to PNG is forecast to increase by an average annual rate of 9.7 per cent in the short-term (five years) and 8.1 per cent in the long-term (ten years), from 120 134 in 2008 to 190 000 in 2013 and to 260 000 in 2018 (Figure 6.1 and Table 6.1). Growth will be mainly contributed by an increase in the number of visitor arrivals from Oceania and Asia. The number of visitors from these two regions is expected to grow respectively by 8.4 and 9.2 per cent a year over the next ten years to 153 000 and 73 000 in 2018.

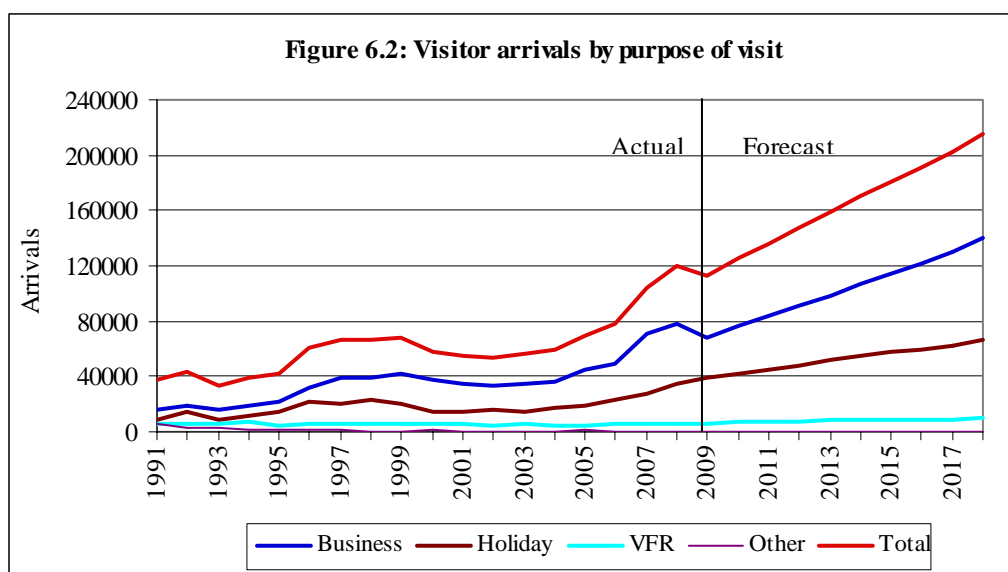
The inbound market is presently dominated by business travel. Of the total visitor arrivals in 2008, 63.7 per cent were business arrivals, 29.5 per cent holiday arrivals, 6.5 per cent VFR arrivals and 0.2 per cent Other arrivals. On average, the number of business, holiday, VFR and Other arrivals is expected to grow respectively by 8.1, 8.3, 5.9 and 2.8 per cent a year over the next ten years (Figure 6.2 and Table 6.2). Business travel will remain the major segment of the inbound market, followed by holiday and VFR travel.



**Table 6.1: International visitor arrivals by region**

Year	Oceania	Asia	North America	Europe	Rest of World	Total	Total Growth(%)
1998	39633	12846	7013	7000	328	66820	1.0
1999	39204	13851	6542	7282	478	67357	0.8
2000	33289	12564	7191	5198	206	58448	-13.2
2001	31786	10846	6019	5161	423	54235	-7.2
2002	30339	11359	6901	4731	360	53690	-1.0
2003	34656	12231	4821	4214	263	56185	4.6
2004	36122	12471	5334	4739	347	59013	5.0
2005	41566	16686	6369	4155	475	69251	17.3
2006	45708	18667	7209	5500	646	77730	12.2
2007	61858	25108	7544	8569	1017	104096	33.9
2008	67977	29930	9960	10881	1095	119843	15.1
<b>2009</b>	<b>75044</b>	<b>30267</b>	<b>10050</b>	<b>9801</b>	<b>1039</b>	<b>126201</b>	<b>5.3</b>
<b>2010</b>	<b>86085</b>	<b>35249</b>	<b>11295</b>	<b>10508</b>	<b>1117</b>	<b>144253</b>	<b>14.3</b>
<b>2011</b>	<b>96535</b>	<b>39537</b>	<b>12812</b>	<b>11070</b>	<b>1177</b>	<b>161131</b>	<b>11.7</b>
<b>2012</b>	<b>105042</b>	<b>43743</b>	<b>14377</b>	<b>11707</b>	<b>1235</b>	<b>176105</b>	<b>9.3</b>
<b>2013</b>	<b>113256</b>	<b>47883</b>	<b>15173</b>	<b>12424</b>	<b>1290</b>	<b>190026</b>	<b>7.9</b>
<b>2014</b>	<b>121347</b>	<b>52345</b>	<b>15751</b>	<b>13185</b>	<b>1341</b>	<b>203969</b>	<b>7.3</b>
<b>2015</b>	<b>128294</b>	<b>57150</b>	<b>16351</b>	<b>13975</b>	<b>1387</b>	<b>217156</b>	<b>6.5</b>
<b>2016</b>	<b>135152</b>	<b>62318</b>	<b>16975</b>	<b>14811</b>	<b>1427</b>	<b>230683</b>	<b>6.2</b>
<b>2017</b>	<b>143387</b>	<b>67061</b>	<b>17206</b>	<b>15673</b>	<b>1462</b>	<b>244790</b>	<b>6.1</b>
<b>2018</b>	<b>152609</b>	<b>72078</b>	<b>17474</b>	<b>16582</b>	<b>1490</b>	<b>260234</b>	<b>6.3</b>
<b>Average annual growth (%):</b>							
1991-2008	7.7	10.0	3.3	3.4	5.9	7.1	
<b>2008-2013</b>	<b>10.7</b>	<b>9.9</b>	<b>8.8</b>	<b>2.7</b>	<b>3.3</b>	<b>9.7</b>	
<b>2008-2018</b>	<b>8.4</b>	<b>9.2</b>	<b>5.8</b>	<b>4.3</b>	<b>3.1</b>	<b>8.1</b>	

\*Numbers in bold are forecasts.



**Table 6.2: Total visitor arrivals by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	38512	22469	5358	481	66820	1.0
1999	41780	19610	5290	677	67357	0.8
2000	37437	14323	5474	1214	58448	-13.2
2001	34351	13896	5536	452	54235	-7.2
2002	33275	15285	4762	368	53690	-1.0
2003	35339	14820	5395	631	56185	4.6
2004	36796	16917	4671	629	59013	5.0
2005	45098	18115	4762	1276	69251	17.3
2006	49547	22919	5075	189	77730	12.2
2007	70220	27737	5912	227	104096	33.9
2008	78294	34719	6493	337	119843	15.1
<b>2009</b>	<b>77924</b>	<b>41370</b>	<b>6583</b>	<b>324</b>	<b>126201</b>	<b>5.3</b>
<b>2010</b>	<b>90076</b>	<b>46126</b>	<b>7696</b>	<b>355</b>	<b>144253</b>	<b>14.3</b>
<b>2011</b>	<b>101112</b>	<b>51227</b>	<b>8420</b>	<b>372</b>	<b>161131</b>	<b>11.7</b>
<b>2012</b>	<b>111039</b>	<b>55717</b>	<b>8965</b>	<b>384</b>	<b>176105</b>	<b>9.3</b>
<b>2013</b>	<b>120521</b>	<b>59762</b>	<b>9352</b>	<b>391</b>	<b>190026</b>	<b>7.9</b>
<b>2014</b>	<b>130228</b>	<b>63661</b>	<b>9682</b>	<b>398</b>	<b>203969</b>	<b>7.3</b>
<b>2015</b>	<b>139745</b>	<b>66867</b>	<b>10135</b>	<b>409</b>	<b>217156</b>	<b>6.5</b>
<b>2016</b>	<b>149653</b>	<b>69970</b>	<b>10637</b>	<b>422</b>	<b>230683</b>	<b>6.2</b>
<b>2017</b>	<b>160001</b>	<b>73296</b>	<b>11061</b>	<b>432</b>	<b>244790</b>	<b>6.1</b>
<b>2018</b>	<b>171334</b>	<b>76985</b>	<b>11471</b>	<b>444</b>	<b>260234</b>	<b>6.3</b>
<b>Average annual growth (%):</b>						
1991-2008	9.6	8.5	0.3	-15.5	7.1	
<b>2008-2013</b>	<b>9.0</b>	<b>11.5</b>	<b>7.6</b>	<b>3.0</b>	<b>9.7</b>	
<b>2008-2018</b>	<b>8.1</b>	<b>8.3</b>	<b>5.9</b>	<b>2.8</b>	<b>8.1</b>	

\*Numbers in bold are forecasts.

### 6.3 Oceania

Oceania is PNG's largest regional source market. It accounts for 58.8 per cent of the total visitor arrivals to PNG. The number of visitor arrivals from this market increased at an average annual rate of 6.0 per cent over the last fifteen years, mainly due to a strong economic growth in the region. It is forecast to increase by 7.6 per cent a year in the next ten years, from 75 000 in 2008 to 142 000 in 2018 (Table 6.3). Business, holiday and VFR travel account for 7.5, 8.5 and 4.6 per cent of the total Oceania visitor arrivals respectively. Business and holiday arrivals are expected to increase to 93 000 and 42 000 respectively in 2018.

Australia and New Zealand are the major source markets of PNG inbound tourism in Oceania region. The outlook for these markets is discussed below.

**Table 6.3: Visitor arrivals from Oceania by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	24119	11551	3694	269	39633	-1.1
1999	25648	9701	3552	303	39204	-1.1
2000	23459	5717	3733	380	33289	-15.1
2001	21792	6027	3769	198	31786	-4.5
2002	21244	5698	3223	174	30339	-4.6
2003	23709	6836	3759	352	34656	14.2
2004	24907	7626	3274	315	36122	4.2
2005	29769	7760	3447	590	41566	15.1
2006	30938	11076	3603	91	45708	10.0
2007	42288	15231	4238	101	61858	35.3
2008	44964	18243	4623	147	67977	9.9
<b>2009</b>	<b>44106</b>	<b>25703</b>	<b>4640</b>	<b>165</b>	<b>74614</b>	<b>9.8</b>
<b>2010</b>	<b>50070</b>	<b>27425</b>	<b>5345</b>	<b>173</b>	<b>83012</b>	<b>11.3</b>
<b>2011</b>	<b>55132</b>	<b>29202</b>	<b>5665</b>	<b>168</b>	<b>90167</b>	<b>8.6</b>
<b>2012</b>	<b>60205</b>	<b>30991</b>	<b>5950</b>	<b>164</b>	<b>97309</b>	<b>7.9</b>
<b>2013</b>	<b>65510</b>	<b>33085</b>	<b>6160</b>	<b>158</b>	<b>104913</b>	<b>7.8</b>
<b>2014</b>	<b>70831</b>	<b>35113</b>	<b>6308</b>	<b>152</b>	<b>112404</b>	<b>7.1</b>
<b>2015</b>	<b>75698</b>	<b>36438</b>	<b>6555</b>	<b>148</b>	<b>118840</b>	<b>5.7</b>
<b>2016</b>	<b>80613</b>	<b>37606</b>	<b>6832</b>	<b>144</b>	<b>125195</b>	<b>5.3</b>
<b>2017</b>	<b>86369</b>	<b>39255</b>	<b>7058</b>	<b>140</b>	<b>132821</b>	<b>6.1</b>
<b>2018</b>	<b>92753</b>	<b>41216</b>	<b>7256</b>	<b>135</b>	<b>141360</b>	<b>6.4</b>
<b>Average annual growth (%):</b>						
1991-2008	9.6	10.7	1.6	-16.1	7.7	
<b>2008-2013</b>	<b>7.8</b>	<b>12.6</b>	<b>5.9</b>	<b>1.5</b>	<b>9.1</b>	
<b>2008-2018</b>	<b>7.5</b>	<b>8.5</b>	<b>4.6</b>	<b>-0.9</b>	<b>7.6</b>	

\*Numbers in bold are forecasts.

### Australia

Australia is the largest single source market for PNG's inbound tourism contributing more than 50 per cent of the total visitor arrivals to PNG. In 2008, 59 600 Australians visited PNG. Around 65 per cent of them were business visitors, 28 per cent holiday visitors, 6.7 per cent VFR and 0.2 per cent Other visitors. This market performed poorly from 1998 to 2002, largely due to the negative perception of Australian media on the security issues in PNG, not undertaking any promotions in Australia, the Sydney Olympic Games and the weaker Australian dollar. However, this market has returned to growth since 2003. The number of Australian arrivals increased by 15.2 per cent in 2003, 5.5 per cent in 2004, 13.5 per cent in 2005, 10.9 per cent in 2006, 33 per cent in 2007 and 10 per cent in 2008.

Tourism Australia has been campaigning to motivate high-spending Australian outbound travellers to holiday at home. The campaign aims to boost domestic tourism by targeting one million Australians who spent \$12 billion last year on leisure travel. The campaign covers activities such as TV, cinema, magazine, press, online, direct marketing as well as various promotions and events in all States of Australia. However, Australia's outbound data suggest that the campaign is not making a significant impact

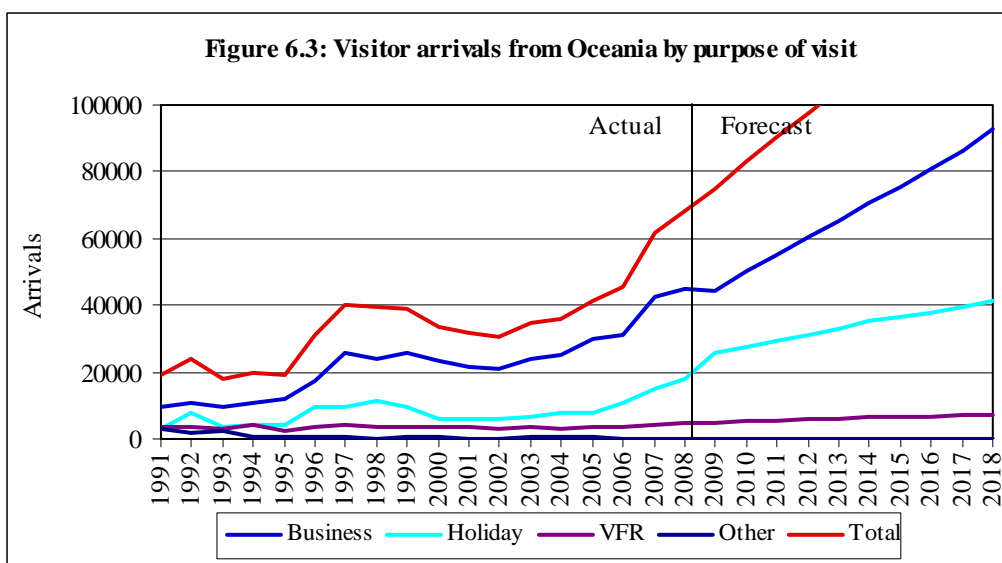
on the number of Australian departures to overseas destinations including PNG. Outbound travel from Australia has been growing strongly after recovering from the 9/11 terrorism incident and the Bali bombings.

PNG is expected to continue to benefit from the strong growth in Australia’s outbound travel. This is largely due to a combination of factors, such as the continuation of a new TPA office in Sydney, the stability in PNG Government, Australia’s strong trade and air linkages with PNG, and the strengthening of the Australian dollar against Kina. The Destination Marketing Representative in the Sydney office has been aggressively promoting PNG as a prime destination. This has started showing a positive impact on Australian arrivals to PNG.

Further, TPA has been running road shows in the main capital cities of Australia in the early last year and this year. This has provided opportunities for tourism operators from PNG to meet Australian outbound tourism operators and sell their products to them.

Two luxury cruise ships from Australia, True North of Northstar Cruises and Corals Princess, will continue to boost the growth in the Australian market. These ships are Australian based and have back to back cruises starting in Alotau and ending in Rabaul/Kavieng.

The number of Australian visitors is forecast to rise by 8.6 per cent a year over the forecast period, from 59 600 in 2008 to 137 000 in 2018 (Figure 6.3 and Table 6.4). Australia will continue to dominate the PNG inbound market over the next ten years.



**Table 6.4: Visitor arrivals from Australia by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth (%)
1998	21981	9998	3204	220	35403	-0.4
1999	22026	8762	2846	184	33818	-4.5
2000	20619	5200	3328	138	29285	-13.4
2001	18810	5432	3273	146	27661	-5.5
2002	18458	5194	2783	127	26562	-4.0
2003	20858	6310	3163	278	30609	15.2
2004	22072	7131	2844	243	32290	5.5
2005	25870	7278	3054	460	36662	13.5
2006	27119	10232	3220	71	40642	10.9
2007	36545	13803	3677	73	54098	33.1
2008	38674	16785	3996	117	59572	10.1
<b>2009</b>	<b>37536</b>	<b>23741</b>	<b>3985</b>	<b>128</b>	<b>65389</b>	<b>9.8</b>
<b>2010</b>	<b>44459</b>	<b>26387</b>	<b>4816</b>	<b>139</b>	<b>75802</b>	<b>15.9</b>
<b>2011</b>	<b>50925</b>	<b>29213</b>	<b>5307</b>	<b>139</b>	<b>85585</b>	<b>12.9</b>
<b>2012</b>	<b>56283</b>	<b>31335</b>	<b>5639</b>	<b>135</b>	<b>93392</b>	<b>9.1</b>
<b>2013</b>	<b>61409</b>	<b>33501</b>	<b>5842</b>	<b>129</b>	<b>100880</b>	<b>8.0</b>
<b>2014</b>	<b>66527</b>	<b>35593</b>	<b>5980</b>	<b>121</b>	<b>108221</b>	<b>7.3</b>
<b>2015</b>	<b>71127</b>	<b>36925</b>	<b>6226</b>	<b>116</b>	<b>114395</b>	<b>5.7</b>
<b>2016</b>	<b>75752</b>	<b>38089</b>	<b>6505</b>	<b>112</b>	<b>120458</b>	<b>5.3</b>
<b>2017</b>	<b>81261</b>	<b>39776</b>	<b>6733</b>	<b>107</b>	<b>127876</b>	<b>6.2</b>
<b>2018</b>	<b>87421</b>	<b>41804</b>	<b>6932</b>	<b>101</b>	<b>136258</b>	<b>6.6</b>
<b>Average annual growth (%):</b>						
1991-2008	9.7	10.8	1.7	-13.4	8.3	
<b>2008-2013</b>	<b>9.7</b>	<b>14.8</b>	<b>7.9</b>	<b>1.9</b>	<b>11.1</b>	
<b>2008-2018</b>	<b>8.5</b>	<b>9.6</b>	<b>5.7</b>	<b>-1.4</b>	<b>8.6</b>	

\*Numbers in bold are forecasts.

### New Zealand

New Zealand is the fourth largest single source market of inbound visitors after Australia, USA and Japan. About 5 500 New Zealand visitors came to PNG in 2008. Among them, 79 per cent were business visitors, 15.6 per cent holiday visitors, 5.2 per cent VFR visitors and 0.3 per cent Other visitors.

The New Zealand market did not perform well between 2002 and 2004. The total number of visitors from this market fell by 13.4 per cent in 2002, 17.0 per cent in 2003 and 4.8 per cent in 2004. The fall was reasonably high in business travel in 2003 and in VFR travel in 2004.

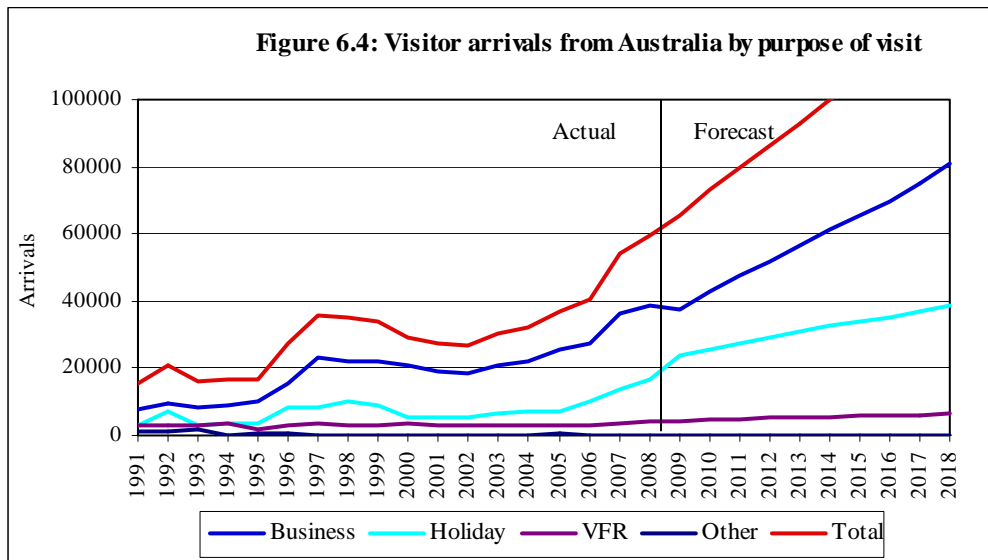
The number of New Zealand outbound departures increased by 4 per cent in the year ending September 2007 to 1.94 million departures. Holiday and business travel increased by 3 per cent and VFR by 7 per cent during the same period.

There is a stiff competition in this market and it is expected to remain so in the future. Australia is taking many marketing and promotion initiatives to increase its market share. The major two initiatives are the launch of 'Journey II Newspaper Supplement' and [www.nzherald.co.nz/myaustralia](http://www.nzherald.co.nz/myaustralia) website on 25 September in 2007. The first

initiative included the distribution of over 275,000 copies of newspaper supplement through the New Zealand Herald, Dominion Post and Christchurch Press, wholesale and retail networks, Premier Agents and Aussie Specialists and G'Day NZ Australia Week 2008.

Further, Pacific Blue is adding 124 flights to Australia and the Pacific Islands for the period during 21 December to 20 January, mainly to meet extra demand during Christmas and New Year. This includes 52 additional direct flights from New Zealand to Australia. Tiger Airways has also announced competitive fares between New Zealand and the Northern Territory (NT) of Australia. This will attract more NZ visitors to the NT sectors as there are currently no direct flights on these routes. Presently, NZ visitors have to fly to Sydney or Brisbane before connecting with a domestic flight to Alice Springs, Broome (WA) or Darwin and more recently Melbourne from December 2007.

Despite the stiff competition, the New Zealand market has performed well in the last four years. The number of New Zealand visitors increased by 28.4 per cent in 2005, 20.2 per cent in 2006 and 62 per cent in 2007 and 19 percent in 2008. Following a positive economic growth in New Zealand and competitive prices of travel and accommodation in PNG, the number of New Zealand visitors to PNG is forecast to increase by 6.4 per cent a year over the next ten years to 11 000 in 2018 (Figure 6.4 and Table 6.5). This market will remain dominated by business travel followed by holiday, VFR and Other travel.



**Table 6.5: Visitor arrivals from New Zealand by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth (%)
1998	1112	1272	241	35	2660	-9.9
1999	2572	772	327	41	3712	39.5
2000	1890	388	248	122	2648	-28.7
2001	2063	401	248	3	2715	2.5
2002	1719	386	226	20	2351	-13.4
2003	1389	309	236	18	1952	-17.0
2004	1367	298	162	31	1858	-4.8
2005	1862	306	168	50	2386	28.4
2006	2274	410	177	6	2867	20.2
2007	3583	748	300	12	4643	61.9
2008	4367	862	288	15	5532	19.1
<b>2009</b>	<b>4172</b>	<b>1213</b>	<b>303</b>	<b>19</b>	<b>5706</b>	<b>3.2</b>
<b>2010</b>	<b>4586</b>	<b>1148</b>	<b>319</b>	<b>19</b>	<b>6071</b>	<b>6.4</b>
<b>2011</b>	<b>4987</b>	<b>1147</b>	<b>324</b>	<b>18</b>	<b>6476</b>	<b>6.7</b>
<b>2012</b>	<b>5396</b>	<b>1179</b>	<b>324</b>	<b>17</b>	<b>6917</b>	<b>6.8</b>
<b>2013</b>	<b>5822</b>	<b>1228</b>	<b>325</b>	<b>17</b>	<b>7391</b>	<b>6.9</b>
<b>2014</b>	<b>6278</b>	<b>1280</b>	<b>325</b>	<b>16</b>	<b>7900</b>	<b>6.9</b>
<b>2015</b>	<b>6767</b>	<b>1334</b>	<b>326</b>	<b>16</b>	<b>8443</b>	<b>6.9</b>
<b>2016</b>	<b>7292</b>	<b>1390</b>	<b>326</b>	<b>15</b>	<b>9023</b>	<b>6.9</b>
<b>2017</b>	<b>7854</b>	<b>1448</b>	<b>326</b>	<b>15</b>	<b>9644</b>	<b>6.9</b>
<b>2018</b>	<b>8458</b>	<b>1508</b>	<b>327</b>	<b>14</b>	<b>10307</b>	<b>6.9</b>
<b>Average annual growth (%):</b>						
1991-2008	8.6	9.3	-1.3	-14.2	6.7	
<b>2008-2013</b>	<b>5.9</b>	<b>7.3</b>	<b>2.4</b>	<b>2.2</b>	<b>6.0</b>	
<b>2008-2018</b>	<b>6.8</b>	<b>5.8</b>	<b>1.3</b>	<b>-0.6</b>	<b>6.4</b>	

\*Numbers in bold are forecasts.

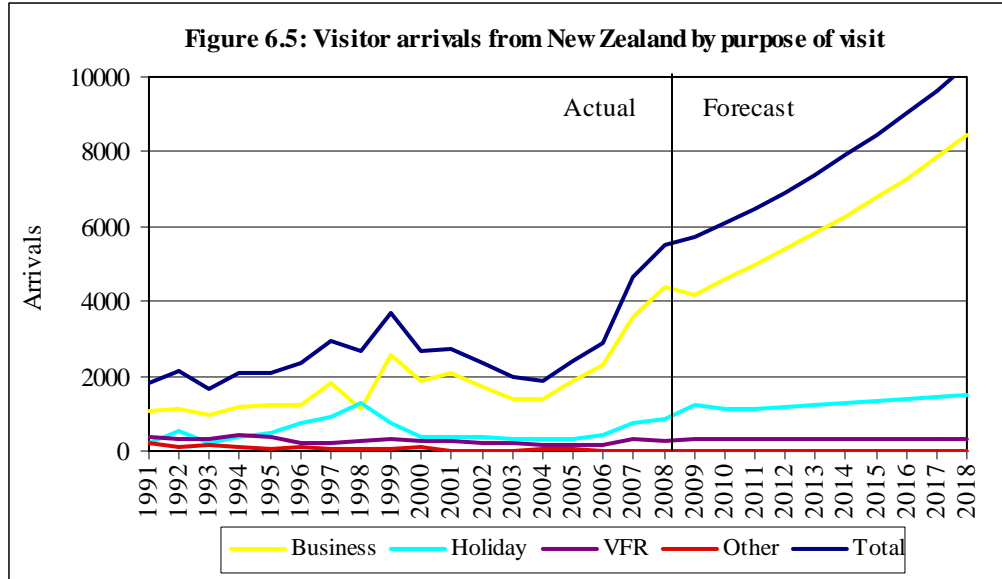
### Other Oceania

Other Oceania includes countries such as Fiji, New Caledonia, Solomon Islands, Tonga, Vanuatu, Western Samoa, Tahiti and other small island countries in the region. In 2008, around 2 800 visitors came to PNG from Other Oceania. Among them, 67 per cent were business visitors, 12 per cent VFR visitors, 21 per cent holiday visitors and 0.5 per cent other visitors. The number of visitors from Other Oceania is forecast to increase by 6.4 per cent a year over the next ten years to 5 400 in year 2018 (Figure 6.5 and Table 6.6). The number of business visitors is expected to increase to 3 600 in 2018.

### 6.4 Asia

Asia is PNG's second largest regional source market of inbound tourism, accounting for 24.0 per cent of the total visitor arrivals to PNG. Business remains the main purpose of Asian travel (67.2 per cent) followed by holiday (28.0 per cent), VFR (4.5 per cent) and Other travel (0.3 per cent).





**Table 6.6: Visitor arrivals from Other Oceania by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	1026	281	249	14	1570	-0.8
1999	1050	167	379	78	1674	6.6
2000	950	129	157	120	1356	-19.0
2001	919	194	248	49	1410	4.0
2002	1067	118	214	27	1426	1.1
2003	1462	217	360	56	2095	46.9
2004	1468	197	268	41	1974	-5.8
2005	2037	176	225	80	2518	27.6
2006	1545	434	206	14	2199	-12.7
2007	2160	680	261	16	3117	41.7
2008	1923	596	339	15	2873	-7.8
<b>2009</b>	<b>2398</b>	<b>749</b>	<b>352</b>	<b>18</b>	<b>3518</b>	<b>22.5</b>
<b>2010</b>	<b>2559</b>	<b>800</b>	<b>376</b>	<b>19</b>	<b>3754</b>	<b>6.7</b>
<b>2011</b>	<b>2718</b>	<b>849</b>	<b>399</b>	<b>21</b>	<b>3988</b>	<b>6.2</b>
<b>2012</b>	<b>2873</b>	<b>898</b>	<b>422</b>	<b>22</b>	<b>4215</b>	<b>5.7</b>
<b>2013</b>	<b>3023</b>	<b>945</b>	<b>444</b>	<b>23</b>	<b>4435</b>	<b>5.2</b>
<b>2014</b>	<b>3165</b>	<b>989</b>	<b>465</b>	<b>24</b>	<b>4644</b>	<b>4.7</b>
<b>2015</b>	<b>3298</b>	<b>1031</b>	<b>485</b>	<b>25</b>	<b>4839</b>	<b>4.2</b>
<b>2016</b>	<b>3421</b>	<b>1069</b>	<b>503</b>	<b>26</b>	<b>5018</b>	<b>3.7</b>
<b>2017</b>	<b>3530</b>	<b>1103</b>	<b>519</b>	<b>27</b>	<b>5179</b>	<b>3.2</b>
<b>2018</b>	<b>3626</b>	<b>1133</b>	<b>533</b>	<b>28</b>	<b>5320</b>	<b>2.7</b>
<b>Average annual growth (%):</b>						
1991-2008	10.6	10.9	3.7	-23.3	2.2	
<b>2008-2013</b>	<b>9.5</b>	<b>9.6</b>	<b>5.6</b>	<b>8.9</b>	<b>9.1</b>	
<b>2008-2018</b>	<b>6.5</b>	<b>6.6</b>	<b>4.6</b>	<b>6.3</b>	<b>6.4</b>	

\*Numbers in bold are forecasts.

The number of visitor arrivals from Asia increased by 7.9 per cent a year in the last fifteen years, largely due to a strong economic growth in most Asian countries and their

proximity with PNG. An expected positive economic outlook for Asia, the appointment of TPA's Marketing Representative in Japan, the likely addition of Air Niugini flights on PNG-Japan route, the commencement of Air Niugini flights to Hong Kong will result in an increase in the number of Asian visitors to PNG. It is forecast to grow by an average of 9.2 per cent a year over the forecast period, from 29 900 in 2008 to 72 100 in 2018 (Table 6.7). A relatively cheaper price of travel and accommodation in PNG and PNG being the nearest holiday destination with its unique culture will motivate Asian visitors to choose PNG over other destinations in the Asia and Pacific region.

The number of business, holiday, VFR and other visitors from Asia is expected to increase respectively by 9.2, 9.1, 9.3 and 8.0 per cent a year in the next ten years.

**Table 6.7: Visitor arrivals from Asia by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	7817	4133	792	104	12846	-6.1
1999	9178	3662	802	209	13851	7.8
2000	7735	3603	874	352	12564	-9.3
2001	6852	2975	918	101	10846	-13.7
2002	6639	3884	748	88	11359	4.7
2003	7181	4056	870	124	12231	7.7
2004	7734	3867	725	145	12471	2.0
2005	9973	5687	613	413	16686	33.8
2006	12547	5226	841	53	18667	11.9
2007	18610	5470	965	63	25108	34.5
2008	22157	6495	1167	111	29930	19.2
<b>2009</b>	<b>22845</b>	<b>6131</b>	<b>1191</b>	<b>101</b>	<b>30267</b>	<b>1.1</b>
<b>2010</b>	<b>26464</b>	<b>7288</b>	<b>1381</b>	<b>117</b>	<b>35249</b>	<b>16.5</b>
<b>2011</b>	<b>29544</b>	<b>8316</b>	<b>1545</b>	<b>132</b>	<b>39537</b>	<b>12.2</b>
<b>2012</b>	<b>32524</b>	<b>9365</b>	<b>1706</b>	<b>148</b>	<b>43743</b>	<b>10.6</b>
<b>2013</b>	<b>35497</b>	<b>10359</b>	<b>1866</b>	<b>162</b>	<b>47883</b>	<b>9.5</b>
<b>2014</b>	<b>38747</b>	<b>11382</b>	<b>2040</b>	<b>176</b>	<b>52345</b>	<b>9.3</b>
<b>2015</b>	<b>42285</b>	<b>12445</b>	<b>2229</b>	<b>191</b>	<b>57150</b>	<b>9.2</b>
<b>2016</b>	<b>46136</b>	<b>13538</b>	<b>2436</b>	<b>208</b>	<b>62318</b>	<b>9.0</b>
<b>2017</b>	<b>49657</b>	<b>14556</b>	<b>2625</b>	<b>223</b>	<b>67061</b>	<b>7.6</b>
<b>2018</b>	<b>53439</b>	<b>15572</b>	<b>2828</b>	<b>239</b>	<b>72078</b>	<b>7.5</b>
<b>Average annual growth (%):</b>						
1991-2008	12.2	10.1	2.5	-11.1	10.0	
<b>2008-2013</b>	<b>9.9</b>	<b>9.8</b>	<b>9.8</b>	<b>7.8</b>	<b>9.9</b>	
<b>2008-2018</b>	<b>9.2</b>	<b>9.1</b>	<b>9.3</b>	<b>8.0</b>	<b>9.2</b>	

\*Numbers in bold are forecasts.

### Japan

Most Japanese visiting PNG are holidaymakers. In 2008, about 80 per cent of total Japanese visitors were holiday visitors followed by 19.4 per cent business visitors, 0.8 per cent VFR visitors and 0.1 per cent Other visitors.

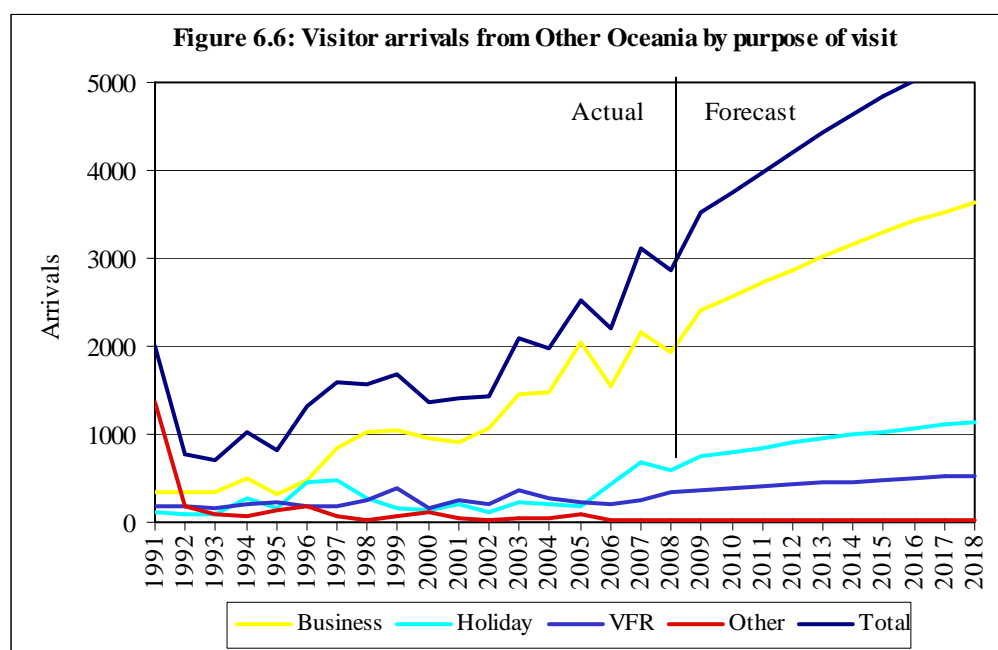
The Japanese market has remained volatile in the past and its performance was not satisfactory in 2009 when the number of Japanese outbound market declined, and the

TPA preliminary data on visitor arrivals suggest that the number has further declined by around 20 per cent in the first eight months of 2009. This was largely due to the global financial crises and the presence of swine flu threat, which affected many destinations around the world. However, the tourism outlook for this market is positive over the forecast period. This is largely due to an expected positive economic outlook for Japan, the recent appointment of a new Marketing Representative in Japan and expected additional flight by Air Niugini on the PNG- Japan route early next year.

The Japanese economy has been growing strongly since 2003. Although the global financial crisis may slow down the rate of the recovery, the outlook for the Japanese economy will remain positive throughout the forecast period. It is expected to grow by 1.7 per cent a year in the next ten years. This will have a positive influence on the number of Japanese visitors to PNG.

According to a report by Japan National Tourist Organization, the total outbound travel from Japan decreased by eight per cent in 2008 and travellers remain hesitant about international travel. The northern summer season, which had shown signs of growth early this year, has been decimated by cancellations as a result of the Influenza A (H1N1) outbreak. The decrease in outbound travel from the Japan market is expected to continue throughout the year as few are travelling closer to home. This could be one of the main reasons for a decrease in the number of Japanese arrivals to PNG in the first nine months of this year.

The number of Japanese visitors to PNG are forecast to increase by 6.7 per cent a year over the forecast period, from 5 000 in 2008 to 10 000 in 2018 (Figure 6.6 and Table 6.8). The number of business and holiday visitors will increase respectively to 1 400 and 8 000 in 2018.



**Table 6.8: Visitor arrivals from Japan by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	802	965	57	88	1912	-29.2
1999	896	1464	49	18	2427	26.9
2000	985	2086	58	115	3244	33.7
2001	848	1724	90	24	2686	-17.2
2002	888	2821	88	7	3804	41.6
2003	821	2805	132	31	3789	-0.4
2004	809	2584	52	29	3474	-8.3
2005	977	4315	41	68	5401	55.5
2006	738	3190	35	3	3966	-26.6
2007	924	2376	45	2	3347	-15.6
2008	956	3936	41	7	4940	47.6
<b>2009</b>	<b>868</b>	<b>2936</b>	<b>35</b>	<b>8</b>	<b>3846</b>	<b>-22.1</b>
<b>2010</b>	<b>1013</b>	<b>3588</b>	<b>42</b>	<b>9</b>	<b>4652</b>	<b>21.0</b>
<b>2011</b>	<b>1088</b>	<b>4180</b>	<b>48</b>	<b>12</b>	<b>5327</b>	<b>14.5</b>
<b>2012</b>	<b>1135</b>	<b>4802</b>	<b>54</b>	<b>14</b>	<b>6005</b>	<b>12.7</b>
<b>2013</b>	<b>1184</b>	<b>5371</b>	<b>60</b>	<b>16</b>	<b>6632</b>	<b>10.4</b>
<b>2014</b>	<b>1240</b>	<b>5930</b>	<b>66</b>	<b>17</b>	<b>7253</b>	<b>9.4</b>
<b>2015</b>	<b>1285</b>	<b>6485</b>	<b>72</b>	<b>17</b>	<b>7859</b>	<b>8.4</b>
<b>2016</b>	<b>1319</b>	<b>7023</b>	<b>78</b>	<b>18</b>	<b>8438</b>	<b>7.4</b>
<b>2017</b>	<b>1341</b>	<b>7533</b>	<b>83</b>	<b>18</b>	<b>8975</b>	<b>6.4</b>
<b>2018</b>	<b>1351</b>	<b>8000</b>	<b>87</b>	<b>18</b>	<b>9456</b>	<b>5.4</b>
<b>Average annual growth (%):</b>						
1991-2008	1.0	12.9	-5.2	-20.6	6.2	
<b>2008-2013</b>	<b>4.4</b>	<b>6.4</b>	<b>8.0</b>	<b>18.1</b>	<b>6.1</b>	
<b>2008-2018</b>	<b>3.5</b>	<b>7.4</b>	<b>7.9</b>	<b>9.8</b>	<b>6.7</b>	

\*Numbers in bold are forecasts.

### Other Asia

Other Asia which includes all Asian and Middle-East countries other than Japan is also a major source of PNG's inbound visitors. The Other Asia includes countries like China, Malaysia, Philippines and India which are economically growing strongly in previous years. The economy of Other Asian countries is strongly growing in the last ten years or so, and it is forecast to grow by 11.5 per cent in China, 5.8 per cent in Malaysia, 6.3 per cent in Philippines and 8.9 percent in India in 2008. This will have a positive influence on the number of visitor arrivals from these countries.

The Chinese market is expected to become one of the main source markets of international tourism. Around 363 million Chinese travelled during the National Day holiday week in 2008. This is an increase of 10.0 per cent over the same week in 2007.

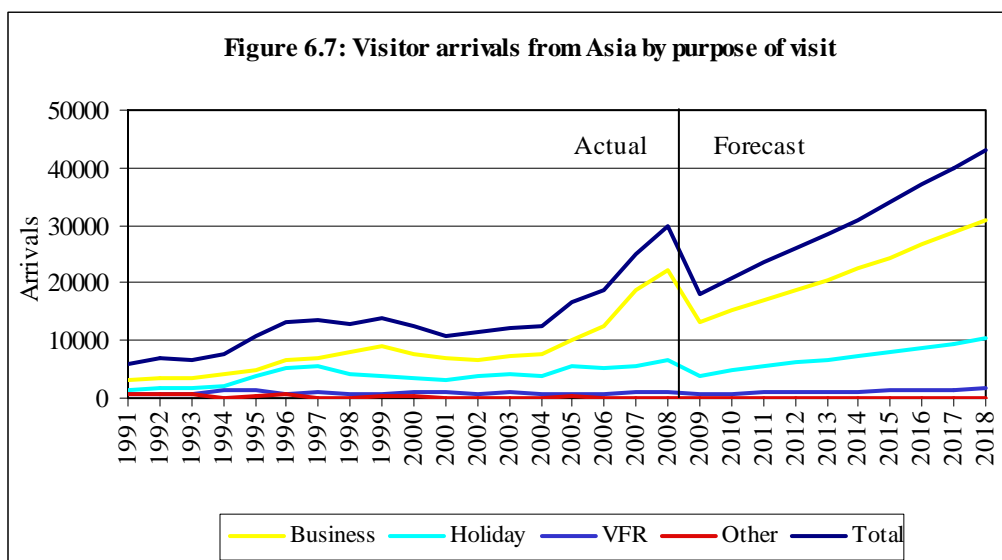
PNG had received Approved Destination Status (ADS) from the Chinese Government in 2007. This will boost the number of Chinese visitors to PNG in the near future. Nonetheless, PNG has to face a stiff competition in this market, especially from Korea, Singapore and South Africa. Since the beginning of October 2007, Korea and Singapore have simplified visa application procedures to attract more Chinese visitors. Korea does not require Chinese tour groups to submit detailed personal information for their visa

applications anymore; whereas Singapore allows 96-hour visa free “transit” in Singapore for Chinese tourists with valid visas issued by Australia, Canada, Japan, New Zealand, the UK and the US. Similarly, South Africa and Canada have been launching many tourism marketing and promotion initiatives in Beijing and Shanghai to attract more Chinese visitors in those countries.

India’s outbound travel is also growing strongly in the last ten years, including 16.0 per cent in 2008. Western countries including Australia are stepping up their market promotions to tap this market. Tourism Australia along with Australian High Commission, Qantas and other private entrepreneurs has been launching their major market promotion initiatives in Indian cities. Similarly, Maldives Tourism, Sri Lankan Tourism Board, Tourism Malaysia and South Africa Tourism are in serious market promotion mode to attract more Indians to these countries. With political stability in the country and the continuous appreciation of the Indian Rupee against the Pound, Euro and Japanese Yen and, to some extent, against the US dollar, the outbound travel from India is expected to grow strongly in the future.

Similarly, Malaysia’s outbound travel is on rise with its strong economy growth and low unemployment rate. Air Asia introduced new services from Kuala Lumpur to Chiang Mai and from Kuala Lumpur to Phnom Penh in 2005. Singapore Tourism Board, Taiwan Visitors Association and Cathay Pacific are aggressively promoting their destinations through major media print, television, radio and tactical campaign with trade partners. Travel agents in Malaysia are promoting holiday packages to Bangkok, Hong Kong, Korea, China and Australia.

About 25 000 visitors from Other Asia visited PNG in 2008. This is an increase of 15 per cent on previous year. They came mainly for business (85 per cent), holiday (10 per cent) VFR (4.5 per cent) and Other travel (0.4 per cent) (Figure 6.7 and Table 6.9).



**Table 6.9: Visitor arrivals from Other Asia by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	7015	3168	735	16	10934	-0.4
1999	8282	2198	753	191	11424	<b>4.5</b>
2000	6750	1517	816	237	9320	-18.4
2001	6004	1251	828	77	8160	-12.4
2002	5751	1063	660	81	7555	-7.4
2003	6360	1251	738	93	8442	11.7
2004	6925	1283	673	116	8997	6.6
2005	8996	1372	572	345	11285	25.4
2006	11809	2036	806	50	14701	30.3
2007	17686	3094	920	61	21761	48.0
2008	21201	2559	1126	104	24990	14.8
<b>2009</b>	<b>21977</b>	<b>3195</b>	<b>1156</b>	<b>93</b>	<b>26421</b>	<b>5.7</b>
<b>2010</b>	<b>25451</b>	<b>3700</b>	<b>1339</b>	<b>108</b>	<b>30598</b>	<b>15.8</b>
<b>2011</b>	<b>28456</b>	<b>4137</b>	<b>1497</b>	<b>121</b>	<b>34210</b>	<b>11.8</b>
<b>2012</b>	<b>31390</b>	<b>4563</b>	<b>1652</b>	<b>133</b>	<b>37738</b>	<b>10.3</b>
<b>2013</b>	<b>34312</b>	<b>4988</b>	<b>1805</b>	<b>146</b>	<b>41251</b>	<b>9.3</b>
<b>2014</b>	<b>37507</b>	<b>5452</b>	<b>1973</b>	<b>159</b>	<b>45092</b>	<b>9.3</b>
<b>2015</b>	<b>41000</b>	<b>5960</b>	<b>2157</b>	<b>174</b>	<b>49291</b>	<b>9.3</b>
<b>2016</b>	<b>44817</b>	<b>6515</b>	<b>2358</b>	<b>190</b>	<b>53880</b>	<b>9.3</b>
<b>2017</b>	<b>48316</b>	<b>7024</b>	<b>2542</b>	<b>205</b>	<b>58087</b>	<b>7.8</b>
<b>2018</b>	<b>52088</b>	<b>7572</b>	<b>2741</b>	<b>221</b>	<b>62622</b>	<b>7.8</b>
<b>Average annual growth (%):</b>						
1991-2008	13.9	7.5	3.2	-8.5	11.1	
<b>2008-2013</b>	<b>10.1</b>	<b>14.3</b>	<b>9.9</b>	<b>7.0</b>	<b>10.5</b>	
<b>2008-2018</b>	<b>9.4</b>	<b>11.5</b>	<b>9.3</b>	<b>7.8</b>	<b>9.6</b>	

\*Numbers in bold are forecasts.

Following a positive economic outlook for Other Asia, Other Asians' willingness to see unique culture of PNG, competitive airfares and PNG being the closest holiday destination, the number of Other Asian visitors increased by 8 per cent in the last nine months. It is forecast to grow by 6 per cent in 2009 and annually by 9.6 per cent over the next ten years to 63 000 in 2018.

## 6.5 North America

North America is also one of the major source markets of PNG's inbound tourism, contributing 8.0 per cent to the total inbound visitors. This market is a relatively matured market and dominated by holiday travel (55.8 per cent) followed by business (39.8 per cent), VFR (4.1 per cent) and Other travel (0.3 per cent). It has potential to grow in future due to emerging tourist activities such as scuba diving and bird watching, and also due to a sustained positive economic growth in Canada and the United States after the global economic recession.

The positive economic outlook for North America, TPA's continuous market promotion initiatives through the Marketing Representative in Los Angeles and the full recovery in travellers' confidence from the September-11 terrorism incident will encourage more North Americans to travel to overseas holiday destinations including PNG.

The number of North American visitor arrivals is forecast to increase by 3.6 per cent a year, from 9 980 in 2008 to 15 000 in 2018 (Table 6.10). Business and holiday travel from North America are expected to increase respectively to 6 700 and 7 000 in 2018.

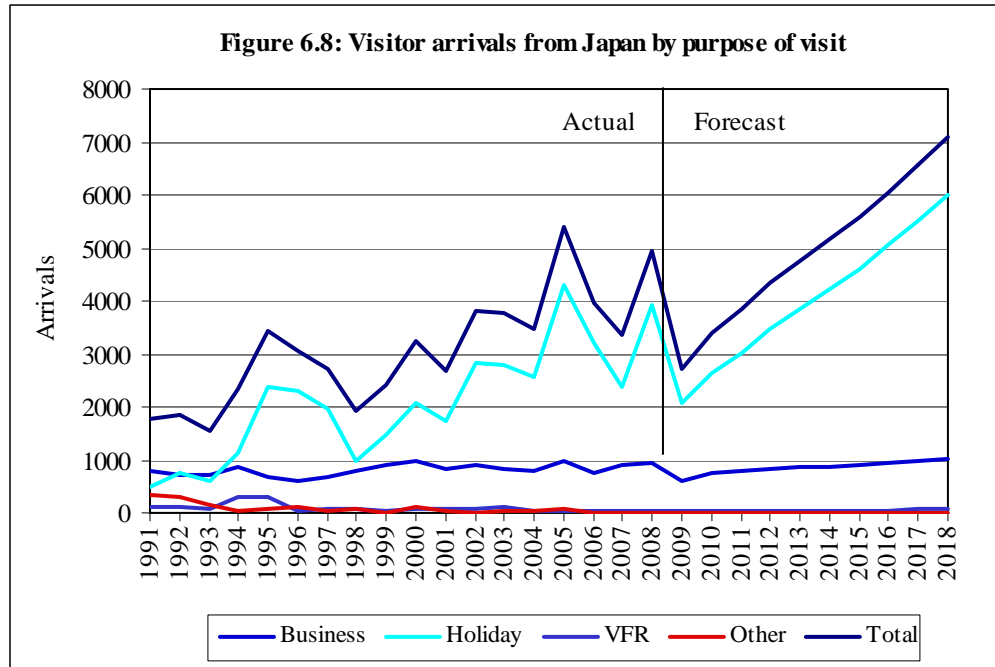
**Table 6.10: Visitor arrivals from North America by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	3355	3167	449	42	7013	0.5
1999	3283	2798	405	56	6542	-6.7
2000	3687	2857	412	235	7191	9.9
2001	2632	2897	399	91	6019	-16.3
2002	2733	3702	392	74	6901	14.7
2003	2430	1925	362	104	4821	-30.1
2004	2046	2834	351	103	5334	10.6
2005	2973	2879	337	180	6369	19.4
2006	2867	4025	293	24	7209	13.2
2007	3991	3177	338	38	7544	4.6
2008	4357	5171	388	44	9960	32.0
<b>2009</b>	<b>4626</b>	<b>4953</b>	<b>369</b>	<b>30</b>	<b>9979</b>	<b>0.2</b>
<b>2010</b>	<b>4862</b>	<b>5277</b>	<b>389</b>	<b>33</b>	<b>10561</b>	<b>5.8</b>
<b>2011</b>	<b>5015</b>	<b>5584</b>	<b>400</b>	<b>34</b>	<b>11032</b>	<b>4.5</b>
<b>2012</b>	<b>5305</b>	<b>5916</b>	<b>405</b>	<b>33</b>	<b>11660</b>	<b>5.7</b>
<b>2013</b>	<b>5646</b>	<b>6228</b>	<b>410</b>	<b>33</b>	<b>12317</b>	<b>5.6</b>
<b>2014</b>	<b>5912</b>	<b>6439</b>	<b>409</b>	<b>33</b>	<b>12793</b>	<b>3.9</b>
<b>2015</b>	<b>6190</b>	<b>6657</b>	<b>409</b>	<b>33</b>	<b>13289</b>	<b>3.9</b>
<b>2016</b>	<b>6481</b>	<b>6882</b>	<b>409</b>	<b>33</b>	<b>13805</b>	<b>3.9</b>
<b>2017</b>	<b>6591</b>	<b>6963</b>	<b>415</b>	<b>33</b>	<b>14002</b>	<b>1.4</b>
<b>2018</b>	<b>6727</b>	<b>7052</b>	<b>421</b>	<b>34</b>	<b>14233</b>	<b>1.7</b>
<b>Average annual growth (%):</b>						
1991-2008	5.4	5.2	-3.7	-16.6	3.3	
<b>2008-2013</b>	<b>5.3</b>	<b>3.8</b>	<b>1.1</b>	<b>-5.7</b>	<b>4.3</b>	
<b>2008-2018</b>	<b>4.4</b>	<b>3.2</b>	<b>0.8</b>	<b>-2.7</b>	<b>3.6</b>	

\*Numbers in bold are forecasts.

### Canada

Canada is a high yielding and very seasonal market. However, it is a relatively small source market for PNG's inbound tourism. In 2008, 1 900 Canadians visited PNG. Among them, 69.5 per cent were business visitors, 26.2 per cent holiday visitors, 3.9 per cent VFR visitors and 0.5 per cent Other visitors. With an expected positive economic outlook for Canada, the number of Canadian visitors is forecast to increase by 5.0 per cent a year to about 3 200 in 2018 (Figure 6.8 and Table 6.11).



**Table 6.11: Visitor arrivals from Canada by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	599	263	46	4	912	-17.1
1999	597	238	78	10	923	1.2
2000	1388	235	69	70	1762	90.9
2001	409	228	62	6	705	-60.0
2002	414	373	53	8	848	20.3
2003	374	126	55	5	560	-34.0
2004	330	204	40	12	586	4.6
2005	475	122	43	20	660	12.6
2006	586	351	40	4	981	48.6
2007	995	335	52	3	1385	41.2
2008	1343	506	75	9	1933	39.6
<b>2009</b>	<b>1196</b>	<b>482</b>	<b>102</b>	<b>12</b>	<b>1792</b>	<b>-7.3</b>
<b>2010</b>	<b>1313</b>	<b>539</b>	<b>110</b>	<b>13</b>	<b>1975</b>	<b>10.2</b>
<b>2011</b>	<b>1446</b>	<b>571</b>	<b>110</b>	<b>13</b>	<b>2139</b>	<b>8.3</b>
<b>2012</b>	<b>1625</b>	<b>585</b>	<b>102</b>	<b>11</b>	<b>2324</b>	<b>8.6</b>
<b>2013</b>	<b>1815</b>	<b>592</b>	<b>95</b>	<b>10</b>	<b>2513</b>	<b>8.1</b>
<b>2014</b>	<b>1955</b>	<b>596</b>	<b>90</b>	<b>10</b>	<b>2651</b>	<b>5.5</b>
<b>2015</b>	<b>2104</b>	<b>599</b>	<b>85</b>	<b>9</b>	<b>2797</b>	<b>5.5</b>
<b>2016</b>	<b>2260</b>	<b>601</b>	<b>81</b>	<b>9</b>	<b>2951</b>	<b>5.5</b>
<b>2017</b>	<b>2328</b>	<b>620</b>	<b>83</b>	<b>9</b>	<b>3040</b>	<b>3.0</b>
<b>2018</b>	<b>2421</b>	<b>644</b>	<b>86</b>	<b>9</b>	<b>3161</b>	<b>4.0</b>
<b>Average annual growth (%):</b>						
1991-2008	9.8	6.2	-3.1	-9.9	6.7	
<b>2008-2013</b>	<b>6.2</b>	<b>3.2</b>	<b>4.9</b>	<b>2.9</b>	<b>5.4</b>	
<b>2008-2018</b>	<b>6.1</b>	<b>2.4</b>	<b>1.4</b>	<b>0.3</b>	<b>5.0</b>	

\*Numbers in bold are forecasts.



## United States

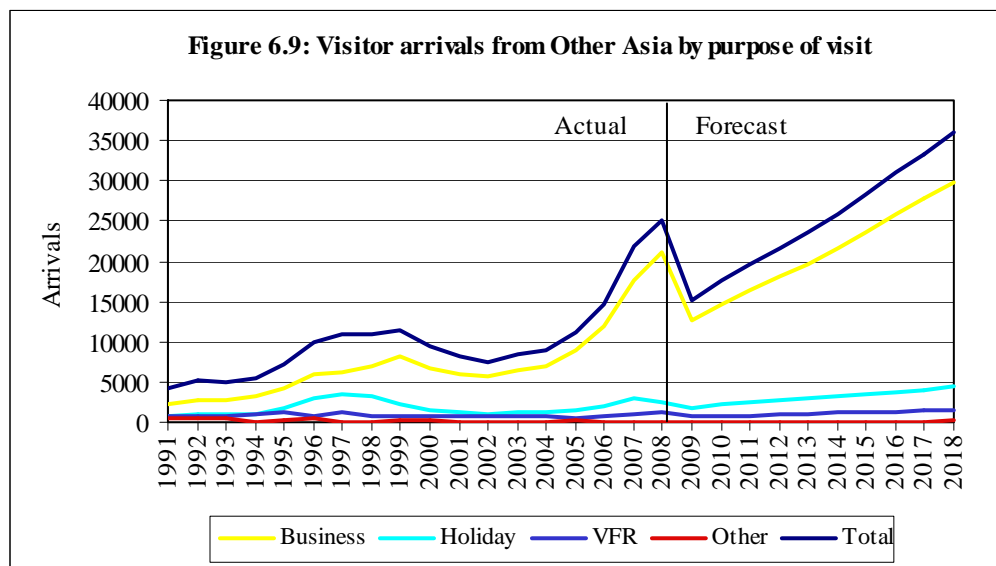
Around 8 000 Americans visited PNG in 2008. Although the number of US visitors is relatively small, the US is PNG’s second largest individual source market after Australia. It contributes 8.0 per cent to the total inbound visitor arrivals.

Unlike other source markets, the United States market is dominated by holiday travel. Of the total visitor arrivals from the USA, 58.0 per cent were holiday travellers and 38 per cent business travellers, 4 per cent VFR travellers and 0.4 per cent Other travellers.

The US economy is expected to be strong (after the financial crises) over the next ten years with real GDP expected to increase by 2.0 per cent a year over the forecast period. Consumer confidence has returned to the Pre-September-11 level implying that the US outbound travel will rise in the future. On average, the exchange rate between Kina and the US dollar will remain at US\$0.36 per Kina during the entire forecast period. This will have a neutral influence on the number of overseas visitor arrivals to PNG.

As mentioned earlier, the United States is a matured and long-haul market. Therefore, a continued and sustained growth is expected from this market. Cruise shipping is also an important mode of transportation to bring visitors from USA to PNG.

The US market will perform favourably well over the forecast period, largely due to an expected positive economic growth after the financial crises, the working efforts of the new TPA office in Los Angeles and the full recovery in consumer confidence. The number of US visitors increased by 11.4 per cent in 2004, 20.2 per cent in 2005, 9.1 per cent in 2006 and decreased by 1.1 per cent in 2007, but increased strongly by 30 per cent in 2008. It is forecast to increase annually by 3.3 per cent over the forecast period to 12 000 in 2018 (Figure 6.9 and Table 6.12).



## 6.12: Visitor arrivals from the United States by purpose of visit

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	2756	2904	403	38	6101	3.8
1999	2686	2560	327	46	5619	-7.9
2000	2299	2622	343	165	5429	-3.4
2001	2223	2669	337	85	5314	-2.1
2002	2319	3329	339	66	6053	13.9
2003	2056	1799	307	99	4261	-29.6
2004	1716	2630	311	91	4748	11.4
2005	2498	2757	294	160	5709	20.2
2006	2281	3674	253	20	6228	9.1
2007	2996	2842	286	35	6159	-1.1
2008	3014	4665	313	35	8027	30.3
<b>2009</b>	<b>3430</b>	<b>4471</b>	<b>268</b>	<b>19</b>	<b>8187</b>	<b>2.0</b>
<b>2010</b>	<b>3549</b>	<b>4738</b>	<b>279</b>	<b>20</b>	<b>8587</b>	<b>4.9</b>
<b>2011</b>	<b>3568</b>	<b>5014</b>	<b>290</b>	<b>21</b>	<b>8894</b>	<b>3.6</b>
<b>2012</b>	<b>3680</b>	<b>5331</b>	<b>303</b>	<b>22</b>	<b>9336</b>	<b>5.0</b>
<b>2013</b>	<b>3831</b>	<b>5636</b>	<b>314</b>	<b>22</b>	<b>9804</b>	<b>5.0</b>
<b>2014</b>	<b>3957</b>	<b>5844</b>	<b>319</b>	<b>23</b>	<b>10142</b>	<b>3.4</b>
<b>2015</b>	<b>4086</b>	<b>6058</b>	<b>324</b>	<b>23</b>	<b>10492</b>	<b>3.4</b>
<b>2016</b>	<b>4220</b>	<b>6281</b>	<b>329</b>	<b>24</b>	<b>10854</b>	<b>3.4</b>
<b>2017</b>	<b>4263</b>	<b>6344</b>	<b>332</b>	<b>24</b>	<b>10962</b>	<b>1.0</b>
<b>2018</b>	<b>4305</b>	<b>6407</b>	<b>335</b>	<b>24</b>	<b>11072</b>	<b>1.0</b>
<b>Average annual growth (%):</b>						
1991-2008	4.1	5.1	-3.8	-17.5	2.8	
<b>2008-2013</b>	<b>4.9</b>	<b>3.9</b>	<b>0.1</b>	<b>-8.5</b>	<b>4.1</b>	
<b>2008-2018</b>	<b>3.6</b>	<b>3.2</b>	<b>0.7</b>	<b>-3.6</b>	<b>3.3</b>	

\*Numbers in bold are forecasts.

## 6.6 Europe

Like the North America, Europe is a matured market and dominated by business and holiday travel. In 2008, a total of 10 900 Europeans visited PNG. Among them, 49.0 per cent were business arrivals followed by holiday arrivals (44.7 per cent), VFR arrivals (5.9 per cent) and Other arrivals (0.4 per cent).

The European market has remained volatile in the past. The number of visitors from this market declined by 12.3 per cent in 2005 but it increased by 32.4 per cent in 2008, largely due to a strong economic growth in Europe, especially in Germany and UK, and the marketing and promotion initiatives taken by TPA in Europe. The real GDP of Germany and UK grew by 1.3 and 0.7 per cent respectively in 2008.

The performance of the European market is expected to be strong over the forecast period. The number of European visitors is forecast to increase by 3.6 per cent a year to 15 500 in 2018 (Table 6.13). Such a strong growth is expected largely due to an expected positive economic growth in main European countries, the TPA's marketing and promotion initiatives through TPA office in Frankfurt and the attendance of TPA in

MITT (a major travel show) and dive show in Moscow and TUR in Sweden in the last three years. The Frankfurt office caters for a relatively large market that includes in the European continent. The outcome of the TPA's attendance in travel shows has been positive. Especially, Russian market has responded in a very short time with divers coming to PNG. TPA has started presenting visitor arrival numbers individually for Russia, Scandinavia and Italy since 2005. Figures for these markets were never published separately in TPA's previous visitor survey reports; rather they were grouped in other Europe.

**Table 6.13: Visitor arrivals from Europe by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	3075	3471	404	50	7000	45.2
1999	3403	3329	470	80	7282	4.0
2000	2421	2106	437	234	5198	-28.6
2001	2799	1911	413	38	5161	-0.7
2002	2395	1935	374	27	4731	-8.3
2003	1843	1948	374	49	4214	-10.9
2004	1870	2507	301	61	4739	12.5
2005	2050	1695	328	82	4155	-12.3
2006	2696	2461	323	20	5500	32.4
2007	4552	3665	331	21	8569	55.8
2008	5958	4628	267	28	10881	27.0
<b>2009</b>	<b>4848</b>	<b>4016</b>	<b>291</b>	<b>19</b>	<b>9174</b>	<b>-15.7</b>
<b>2010</b>	<b>5254</b>	<b>4266</b>	<b>298</b>	<b>18</b>	<b>9836</b>	<b>7.2</b>
<b>2011</b>	<b>5526</b>	<b>4529</b>	<b>293</b>	<b>16</b>	<b>10364</b>	<b>5.4</b>
<b>2012</b>	<b>5808</b>	<b>4850</b>	<b>286</b>	<b>15</b>	<b>10959</b>	<b>5.7</b>
<b>2013</b>	<b>6132</b>	<b>5198</b>	<b>280</b>	<b>15</b>	<b>11625</b>	<b>6.1</b>
<b>2014</b>	<b>6473</b>	<b>5569</b>	<b>275</b>	<b>14</b>	<b>12331</b>	<b>6.1</b>
<b>2015</b>	<b>6818</b>	<b>5958</b>	<b>271</b>	<b>14</b>	<b>13061</b>	<b>5.9</b>
<b>2016</b>	<b>7178</b>	<b>6374</b>	<b>267</b>	<b>15</b>	<b>13833</b>	<b>5.9</b>
<b>2017</b>	<b>7601</b>	<b>6755</b>	<b>252</b>	<b>14</b>	<b>14622</b>	<b>5.7</b>
<b>2018</b>	<b>8043</b>	<b>7155</b>	<b>240</b>	<b>14</b>	<b>15452</b>	<b>5.7</b>
<b>Average annual growth (%):</b>						
1991-2008	6.4	5.5	-7.7	-19.6	3.4	
<b>2008-2013</b>	<b>0.6</b>	<b>2.3</b>	<b>1.0</b>	<b>-12.1</b>	<b>1.3</b>	
<b>2008-2018</b>	<b>3.0</b>	<b>4.5</b>	<b>-1.1</b>	<b>-6.8</b>	<b>3.6</b>	

\*Numbers in bold are forecasts.

### Germany

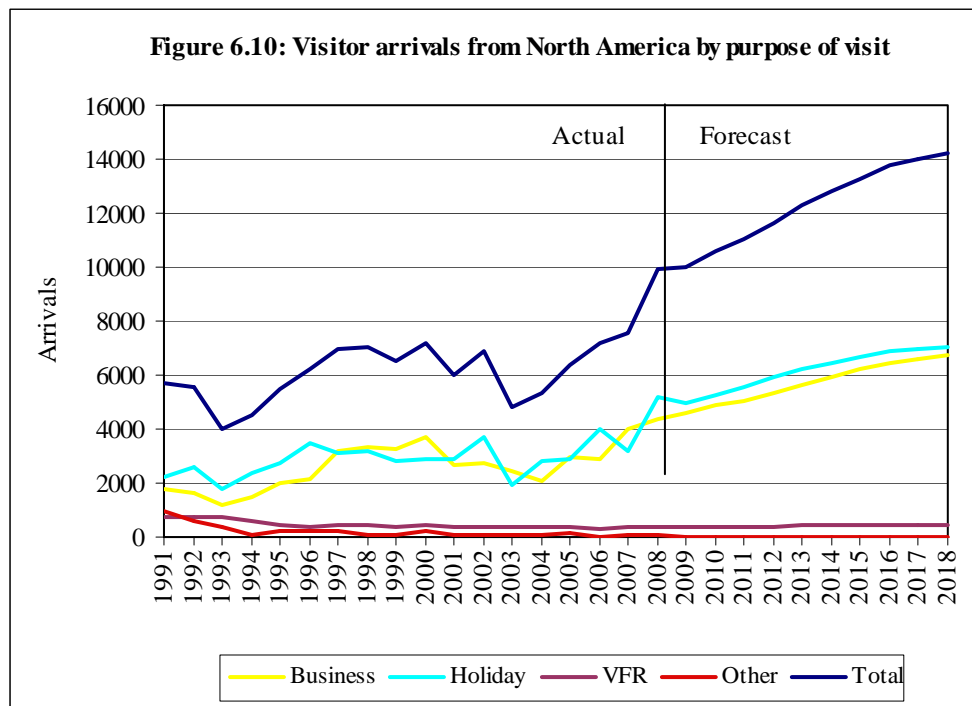
Germany is an emerging source market for PNG's inbound tourism. In 2008, 2 300 Germans came to PNG. Of the total German visitors, 58 per cent were holiday visitors followed by 40 per cent business visitors, 1.6 per cent VFR visitors and 0.2 per cent Other visitors. Cruise shipping is an important mode of transportation for German visitors.

The German economy is forecast to grow by 1.3 per cent a year over the next ten years. Although high oil prices are likely to put an upward pressure on inflation, underlying

inflation will remain low (1.6 per cent) during the forecast period. This means that Germans will have more money to spend on their travel.

The main outbound destinations for German travellers are Spain, Turkey, Bali, China, USA, Hong Kong and New Zealand. However, the September-11 incident in New York and the bombings in Bali, Madrid and London have made German travellers to switch their holiday destinations from high-risk destinations (such as US, UK and Bali) to low-risk destinations (such as PNG).

An expected positive economic growth in Germany and Germans' eagerness to experience unique destinations like PNG are likely to motivate more Germans to visit PNG in the future. The number German visitors is forecast to increase by 4.6 per cent a year to 3 600 in 2018 (Figure 6.10 and Table 6.14).



### United Kingdom

The United Kingdom is PNG's largest market in Europe. It contributes 4.0 per cent to the total visitor arrivals to PNG. Around 4 500 visitors from this market visited PNG in 2008 (Figure 6.11 and Table 6.15). Among them, 63 per cent were business visitors, 33 per cent holiday visitors, 3.6 per cent VFR visitors and 0.4 per cent Other visitors.

The performance of the UK market was relatively disappointing from 1999 to 2003. The number of arrivals from the United Kingdom declined by 15.8 per cent a year during the period, including 16.0 per cent drop in business travel, 18.0 per cent in holiday travel and 5.9 per cent in VFR travel. However, the downward trend ended in 2004 with a strong positive growth in holiday visitor numbers. The number of holiday and Other visitors increased by 41.8 and 4.5 per cent respectively in the year, resulting

an increase of 8.4 per cent in total UK visitor numbers. This high growth did not continued to the following year. The number again declined by 6.6 per cent in 2005, mainly due to the adverse impact of the London bombings and high international oil prices. However, the market once again bounced back to a strong positive growth of 20.8 per cent in 2006, 97 per cent in 2007 and 26 per cent in 2008. The growth is expected to be lower in 2009 and will pick up strongly during the forecast period.

**Table 6.14: Visitor arrivals from Germany by purpose of visit**

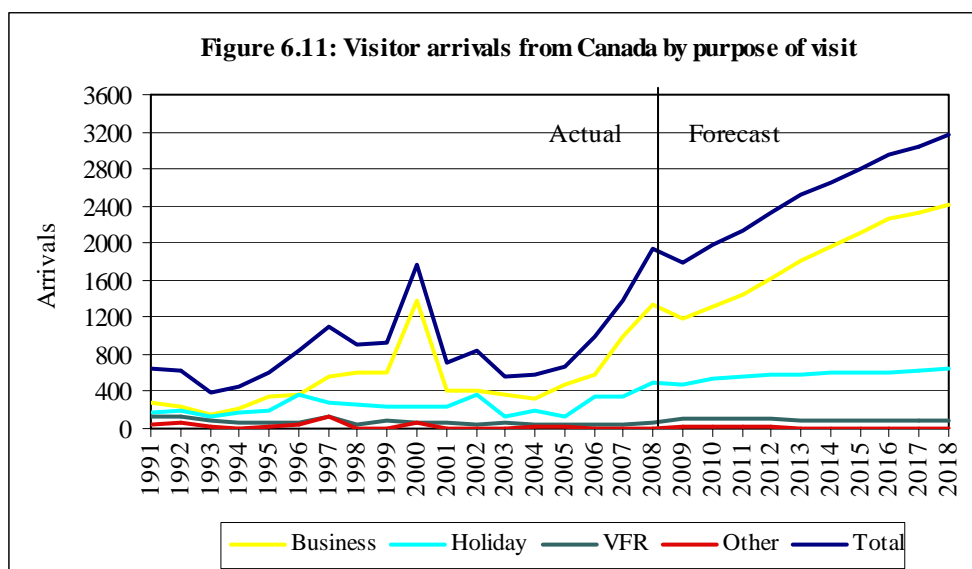
Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	284	552	65	21	922	-12.4
1999	413	1202	66	20	1701	84.5
2000	261	582	84	49	976	-42.6
2001	505	557	81	5	1148	17.6
2002	283	452	61	6	802	-30.1
2003	215	615	60	6	896	11.7
2004	343	771	45	13	1172	30.8
2005	240	294	47	16	597	-49.1
2006	292	459	63	4	818	37.0
2007	458	975	53	6	1492	82.4
2008	726	1505	69	6	2306	54.6
<b>2009</b>	<b>812</b>	<b>1176</b>	<b>32</b>	<b>3</b>	<b>2023</b>	<b>-12.3</b>
<b>2010</b>	<b>888</b>	<b>1243</b>	<b>33</b>	<b>3</b>	<b>2167</b>	<b>7.1</b>
<b>2011</b>	<b>943</b>	<b>1310</b>	<b>34</b>	<b>3</b>	<b>2291</b>	<b>5.7</b>
<b>2012</b>	<b>1010</b>	<b>1396</b>	<b>36</b>	<b>4</b>	<b>2446</b>	<b>6.7</b>
<b>2013</b>	<b>1088</b>	<b>1495</b>	<b>38</b>	<b>4</b>	<b>2625</b>	<b>7.3</b>
<b>2014</b>	<b>1178</b>	<b>1608</b>	<b>40</b>	<b>5</b>	<b>2831</b>	<b>7.8</b>
<b>2015</b>	<b>1276</b>	<b>1730</b>	<b>42</b>	<b>5</b>	<b>3053</b>	<b>7.8</b>
<b>2016</b>	<b>1381</b>	<b>1861</b>	<b>44</b>	<b>6</b>	<b>3292</b>	<b>7.8</b>
<b>2017</b>	<b>1450</b>	<b>1954</b>	<b>46</b>	<b>7</b>	<b>3457</b>	<b>5.0</b>
<b>2018</b>	<b>1523</b>	<b>2052</b>	<b>48</b>	<b>7</b>	<b>3630</b>	<b>5.0</b>
<b>Average annual growth (%):</b>						
1991-2008	9.2	7.2	-5.4	-13.4	5.9	
<b>2008-2013</b>	<b>8.4</b>	<b>-0.1</b>	<b>-11.5</b>	<b>-7.6</b>	<b>2.6</b>	
<b>2008-2018</b>	<b>7.7</b>	<b>3.1</b>	<b>-3.5</b>	<b>1.3</b>	<b>4.6</b>	

\*Numbers in bold are forecasts.

The number of UK visitors is forecast to increase by 4.4 per cent a year over the forecast period to 6 800 in 2018 (Figure 6.11 and Table 6.15). Business and holiday travel are expected to increase respectively to 3 600 and 3 100 in 2018.

### Other Europe

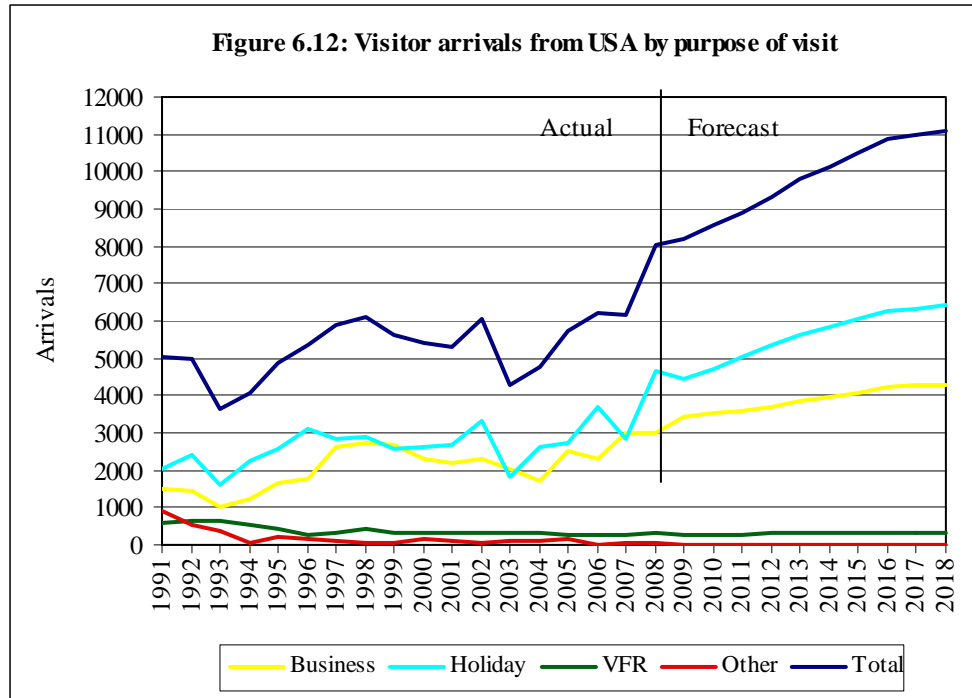
In 2008, about 4 200 visitors came to PNG from Other Europe which includes country like France, Italy and Scandinavia. Of the total Other European visitor arrivals, 40 per cent holiday visitors, 59.3 per cent business visitors, 0.9 per cent VFR visitors and 0.1 per cent Other visitors. A positive economic growth in Other Europe is likely to have a positive influence on the number of visitors from Other Europe which is expect to increase by 2.0 per cent a year in the next ten years to 5 000 in 2018 (Figure 6.12 and Table 6.16).



**Table 6.15: Visitor arrivals from the United Kingdom by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth (%)
1998	1899	1326	206	19	3450	45.6
1999	1764	1024	241	38	3067	-11.1
2000	1424	588	195	72	2279	-25.7
2001	1358	568	193	14	2133	-6.4
2002	1076	559	160	8	1803	-15.5
2003	794	491	152	22	1459	-19.1
2004	750	696	112	23	1581	8.4
2005	826	475	142	33	1476	-6.6
2006	1064	602	110	7	1783	20.8
2007	2092	1289	132	2	3515	97.1
2008	2787	1483	162	18	4450	26.6
<b>2009</b>	<b>2052</b>	<b>1473</b>	<b>236</b>	<b>14</b>	<b>3775</b>	<b>-15.2</b>
<b>2010</b>	<b>2241</b>	<b>1559</b>	<b>239</b>	<b>13</b>	<b>4051</b>	<b>7.3</b>
<b>2011</b>	<b>2338</b>	<b>1673</b>	<b>229</b>	<b>11</b>	<b>4252</b>	<b>4.9</b>
<b>2012</b>	<b>2439</b>	<b>1830</b>	<b>218</b>	<b>9</b>	<b>4496</b>	<b>5.8</b>
<b>2013</b>	<b>2577</b>	<b>2004</b>	<b>208</b>	<b>8</b>	<b>4797</b>	<b>6.7</b>
<b>2014</b>	<b>2726</b>	<b>2192</b>	<b>198</b>	<b>7</b>	<b>5123</b>	<b>6.8</b>
<b>2015</b>	<b>2881</b>	<b>2396</b>	<b>189</b>	<b>6</b>	<b>5472</b>	<b>6.8</b>
<b>2016</b>	<b>3042</b>	<b>2617</b>	<b>180</b>	<b>5</b>	<b>5844</b>	<b>6.8</b>
<b>2017</b>	<b>3305</b>	<b>2843</b>	<b>160</b>	<b>4</b>	<b>6311</b>	<b>8.0</b>
<b>2018</b>	<b>3586</b>	<b>3085</b>	<b>142</b>	<b>3</b>	<b>6816</b>	<b>8.0</b>
<b>Average annual growth (%):</b>						
1991-2008	4.9	6.5	-6.7	-12.9	3.6	
<b>2008-2013</b>	<b>-1.6</b>	<b>6.2</b>	<b>5.1</b>	<b>-15.4</b>	<b>1.5</b>	
<b>2008-2018</b>	<b>2.6</b>	<b>7.6</b>	<b>-1.3</b>	<b>-16.8</b>	<b>4.4</b>	

\*Numbers in bold are forecasts.



**Table 6.16: Visitor arrivals from Other Europe by purpose of visit**

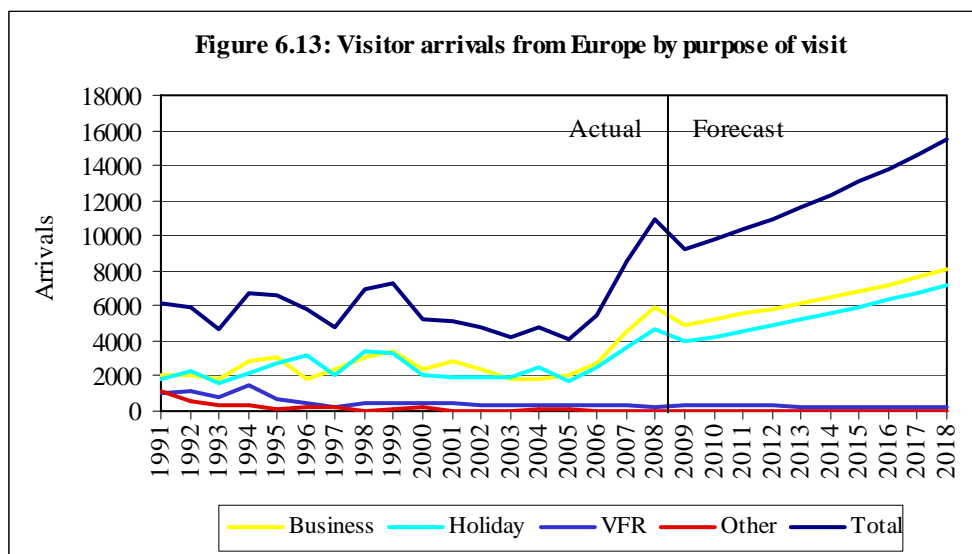
Year	Business	Holiday	VFR	Other	Total	Total Growth(%)
1998	892	1593	133	10	2628	87.8
1999	1226	1103	163	22	2514	-4.3
2000	736	936	158	113	1943	-22.7
2001	936	786	139	19	1880	-3.2
2002	1036	924	153	13	2126	13.1
2003	834	842	162	21	1859	-12.6
2004	777	1040	144	25	1986	6.8
2005	984	926	139	33	2082	4.8
2006	1340	1400	150	9	2899	39.2
2007	2002	1401	146	13	3562	22.9
2008	2445	1640	36	4	4125	15.8
<b>2009</b>	<b>1984</b>	<b>1367</b>	<b>23</b>	<b>2</b>	<b>3376</b>	<b>-18.2</b>
<b>2010</b>	<b>2125</b>	<b>1464</b>	<b>26</b>	<b>2</b>	<b>3617</b>	<b>7.1</b>
<b>2011</b>	<b>2244</b>	<b>1545</b>	<b>29</b>	<b>2</b>	<b>3821</b>	<b>5.6</b>
<b>2012</b>	<b>2359</b>	<b>1624</b>	<b>32</b>	<b>3</b>	<b>4017</b>	<b>5.1</b>
<b>2013</b>	<b>2467</b>	<b>1699</b>	<b>35</b>	<b>3</b>	<b>4204</b>	<b>4.6</b>
<b>2014</b>	<b>2569</b>	<b>1768</b>	<b>38</b>	<b>3</b>	<b>4378</b>	<b>4.1</b>
<b>2015</b>	<b>2661</b>	<b>1832</b>	<b>40</b>	<b>3</b>	<b>4537</b>	<b>3.6</b>
<b>2016</b>	<b>2755</b>	<b>1896</b>	<b>43</b>	<b>4</b>	<b>4697</b>	<b>3.5</b>
<b>2017</b>	<b>2846</b>	<b>1958</b>	<b>46</b>	<b>4</b>	<b>4854</b>	<b>3.3</b>
<b>2018</b>	<b>2935</b>	<b>2019</b>	<b>49</b>	<b>4</b>	<b>5006</b>	<b>3.1</b>
<b>Average annual growth (%):</b>						
1991-2008	7.7	3.6	-12.5	-27.2	2.3	
<b>2008-2013</b>	<b>0.2</b>	<b>0.7</b>	<b>-0.7</b>	<b>-6.8</b>	<b>0.4</b>	
<b>2008-2018</b>	<b>1.8</b>	<b>2.1</b>	<b>3.1</b>	<b>0.3</b>	<b>2.0</b>	

\*Numbers in bold are forecasts.

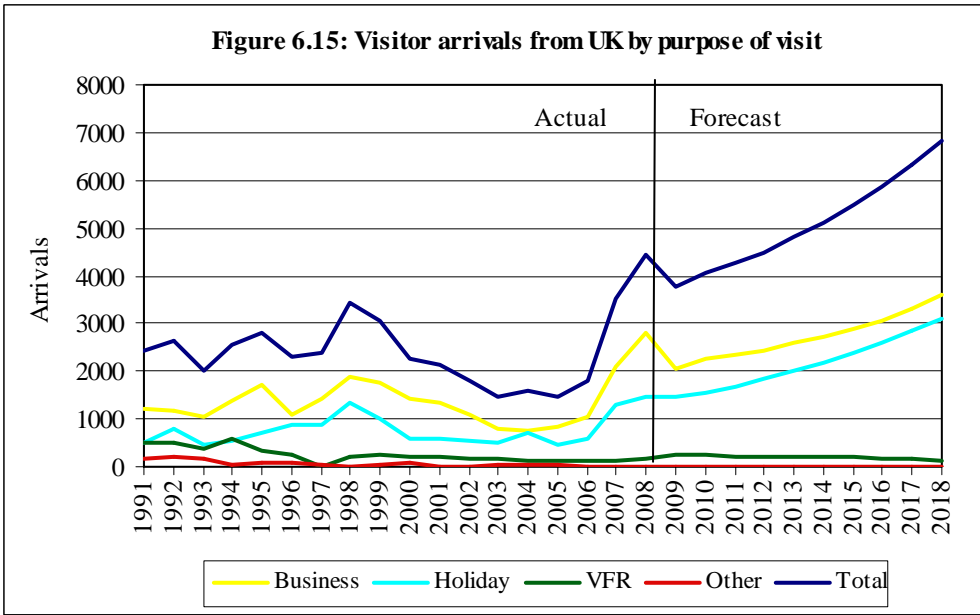
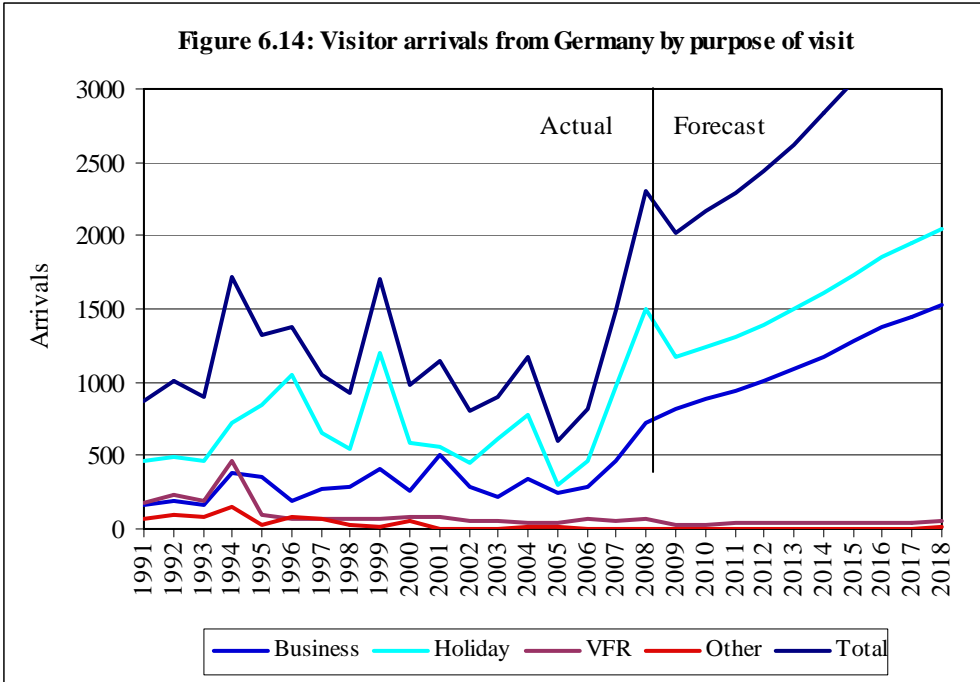
## 6.7 Rest of world

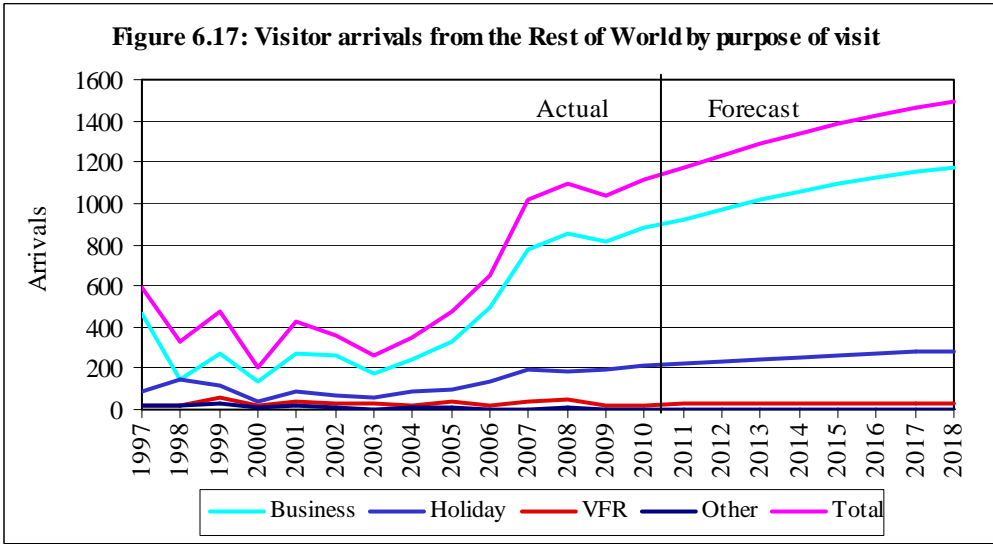
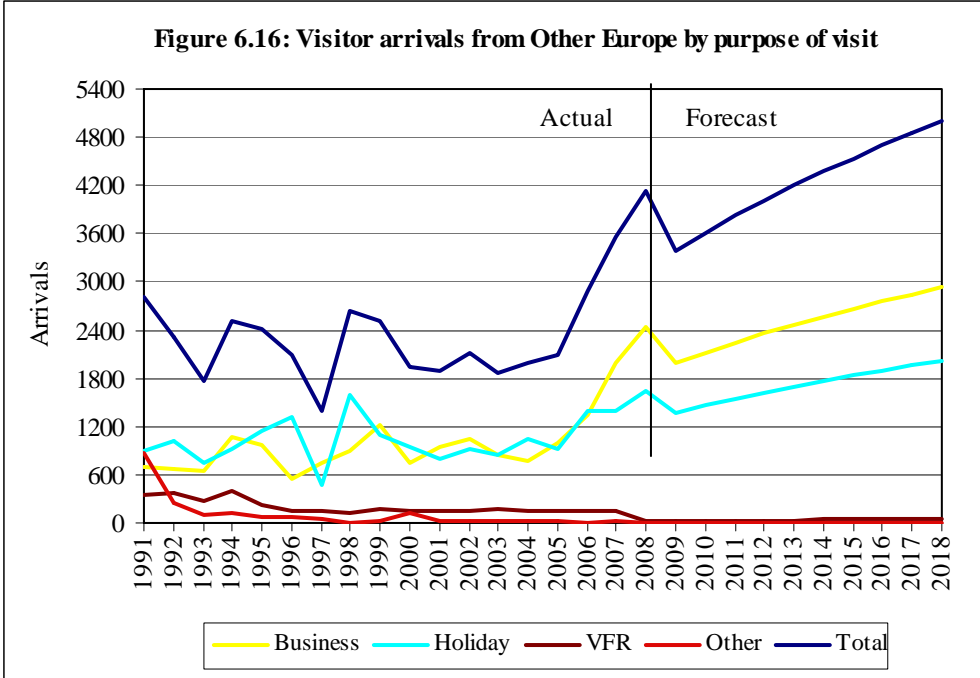
In 2008, over 1 095 visitors came to PNG from the Rest of the World, which includes mainly Russia and countries in Africa and South America. Among them, 78.4 per cent were business visitors followed by 16.6 per cent holiday visitors, 4.4 per cent VFR visitors and 0.6 per cent Other visitors.

The number of visitors from the Rest of the World increased by 3 per cent a year in the last fifteen years and by 32.5 per cent in the last nine months. It is forecast to increase annually by 3.1 per cent over the forecast period to around 1 500 in 2018 (Figure 6.13 and Table 6.17).









**Table 6.17: Visitor arrivals from the Rest of World by purpose of visit**

Year	Business	Holiday	VFR	Other	Total	Total Growth (%)
1998	146	147	19	16	328	-44.8
1999	268	120	61	29	478	45.7
2000	135	40	18	13	206	-56.9
2001	276	86	37	24	423	105.3
2002	264	66	25	5	360	-14.9
2003	176	55	30	2	263	-26.9
2004	239	83	20	5	347	31.9
2005	333	94	37	11	475	36.9
2006	499	131	15	1	646	36.0
2007	779	194	40	4	1017	57.4
2008	858	182	48	7	1095	7.7
<b>2009</b>	<b>817</b>	<b>197</b>	<b>22</b>	<b>3</b>	<b>1039</b>	<b>-5.1</b>
<b>2010</b>	<b>878</b>	<b>212</b>	<b>23</b>	<b>3</b>	<b>1117</b>	<b>7.4</b>
<b>2011</b>	<b>926</b>	<b>223</b>	<b>24</b>	<b>4</b>	<b>1177</b>	<b>5.4</b>
<b>2012</b>	<b>972</b>	<b>234</b>	<b>26</b>	<b>4</b>	<b>1235</b>	<b>4.9</b>
<b>2013</b>	<b>1015</b>	<b>245</b>	<b>27</b>	<b>4</b>	<b>1290</b>	<b>4.4</b>
<b>2014</b>	<b>1055</b>	<b>254</b>	<b>27</b>	<b>4</b>	<b>1341</b>	<b>3.9</b>
<b>2015</b>	<b>1091</b>	<b>263</b>	<b>28</b>	<b>4</b>	<b>1387</b>	<b>3.4</b>
<b>2016</b>	<b>1123</b>	<b>271</b>	<b>29</b>	<b>4</b>	<b>1427</b>	<b>2.9</b>
<b>2017</b>	<b>1151</b>	<b>278</b>	<b>29</b>	<b>4</b>	<b>1462</b>	<b>2.4</b>
<b>2018</b>	<b>1173</b>	<b>283</b>	<b>30</b>	<b>5</b>	<b>1490</b>	<b>1.9</b>
<b>Average annual growth (%):</b>						
1991-2008	10.7	3.1	-3.1	-12.8	5.9	
<b>2008-2013</b>	<b>3.4</b>	<b>6.1</b>	<b>-11.2</b>	<b>-10.6</b>	<b>3.3</b>	
<b>2008-2018</b>	<b>3.2</b>	<b>4.5</b>	<b>-4.7</b>	<b>-4.3</b>	<b>3.1</b>	

\*Numbers in bold are forecasts.

## 7.1 Introduction

Visitor days are an alternative measure of tourism activity and they are useful particularly for planners and investors in the accommodation sector of tourism industry. Hence, forecasts of inbound visitor days were derived on the basis of visitor arrival forecasts and the average length of stay. The forecast number of visitor arrivals (given in Chapter 6) is multiplied by the expected average length of stay (ALS) to derive forecasts of days spent by inbound visitors in PNG.

Econometric models could not be used to forecast average length of stay mainly due to the lack of a continuous long time-series data. In this study, the trend of ALS from the last nine years, with some qualitative adjustment, is used to project the most likely average length of stay in PNG over the forecast period. At the aggregate level, the average length of stay increased by 7.3 per cent a year in the last nine years, and it is expected to increase by 2.0 per cent a year over the next ten years (Table 7.1).

**Table 7.1: Average length of stay (ALS) by country of residence**

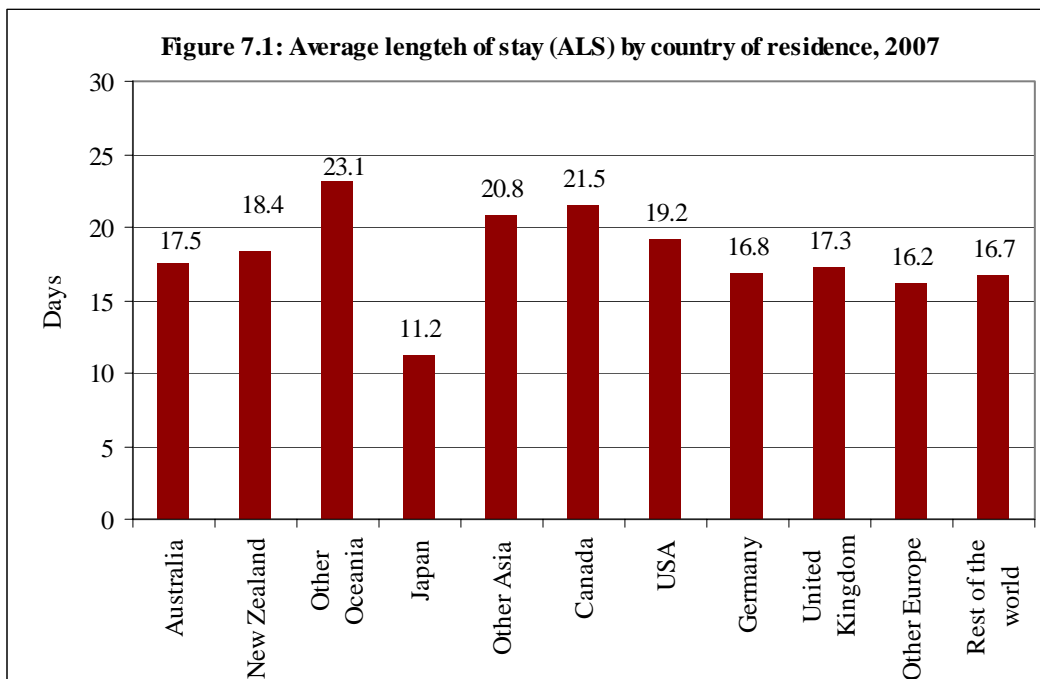
Country of residence	ALS (days)		% Change per year	
	2005	2007	2005 to 2007	2008 to 2018
<b>Oceania</b>				
Australia	17.8	17.5	-0.8	<b>2.0</b>
New Zealand	21.5	18.4	-7.5	<b>2.0</b>
Other Oceania	22.9	23.1	0.4	<b>2.0</b>
<b>Asia</b>				
Japan	10.9	11.2	1.4	<b>2.0</b>
Other Asia	20.5	20.8	0.7	<b>2.0</b>
<b>North America</b>				
Canada	20.5	21.5	2.4	<b>2.0</b>
USA	18.1	19.2	3.0	<b>2.0</b>
<b>Europe</b>				
Germany	17.8	16.8	-2.8	<b>2.0</b>
United Kingdom	20.3	17.3	-7.7	<b>2.0</b>
Other Europe	20.2	16.2	-10.4	<b>2.0</b>
<b>Rest of the world</b>	16.4	16.7	0.9	<b>2.0</b>
<b>Total</b>	18.2	18.1	-0.3	<b>2.0</b>

\*Numbers in bold are forecasts.

Source: International Visitors Survey Report, TPA 2009 and previous issues.

The increase in ALS is expected in all markets. The rate of increase is projected to be 8 per cent in Other Asia, 5 per cent in Canada, the USA, Other Oceania and the Rest of World, 3 per cent in Australia and New Zealand, and 2 per cent in Japan, Germany, the UK and Other Europe. Possible reasons for the increase in ALS are the weakening of Kina against the currency of main source markets, a positive change in media perception in relation to the law and order situation in PNG and the security concerns in many holiday destinations around the world.

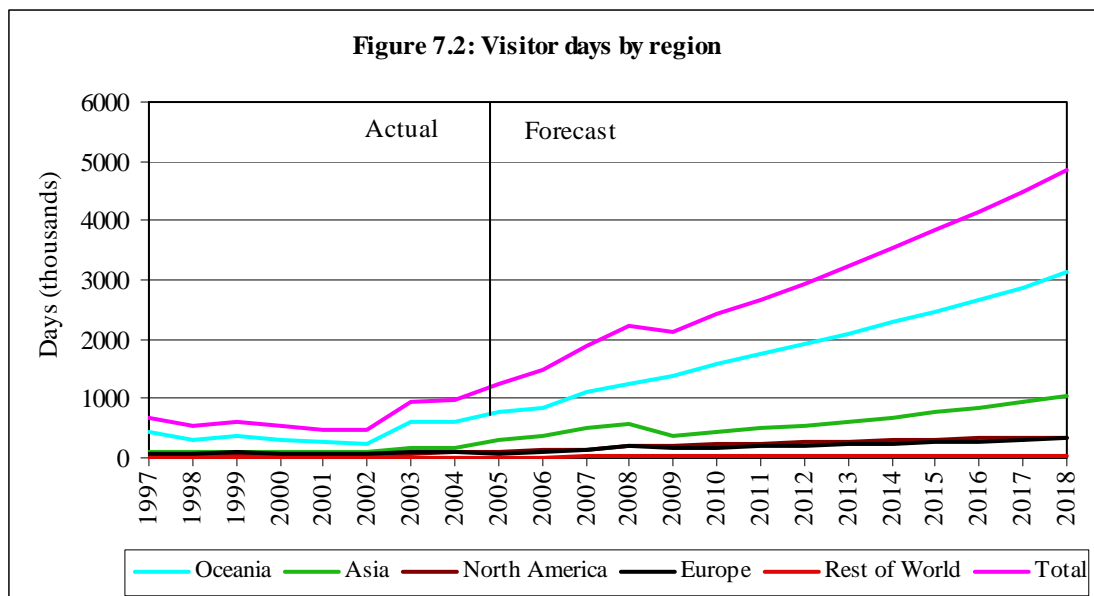
Figure 7.1 and Table 7.1 suggest that the average length of stay varies by market. In 2008, visitor from Other Oceania stayed longer (23.2 days) than visitors from other markets. Japanese visitors remain the most short-period visitors (11.5 days only). Generally, the difference in the length of stay appears to have been due to the geographical location of PNG and the cost of travel. It takes relatively more time and more money to travel from Europe and the North America to PNG than travelling from Asia. Hence, with the exception of Other Oceania visitors, Europeans and the North Americans prefer to spend more days while they are here, especially to maximise the benefits of their travel. They are less likely to repeat their trips within a few years of their departure from PNG. Contrary to this, Asian visitors who spend relatively less time in PNG may prefer to make more short trips than a few long trips.



## 7.2 Total visitor days

Following an expected strong growth in visitor numbers and their average length of stay, total visitor days are forecast to increase by 8.1 per cent a year over the next ten

years, from 2.2 million days in 2008 to around 4.8 million days in 2018 (Figure 7.2 and Table 7.2). The growth in total visitor days will be stronger in the short run than in the long run. Oceania will remain the largest contributor to the total visitor days, followed by Asia, North America, Europe and the Rest of the World.



**Table 7.2: Days spent by all visitors (thousands)**

Year	Oceania	Asia	North America	Europe	Rest of World	Total	Total Growth (%)
2001	254	106	57	54	4	475	-10.9
2002	252	100	69	52	3	476	0.3
2003	596	173	76	84	4	934	96.1
2004	604	184	90	89	5	972	4.1
2005	762	290	117	83	8	1259	29.5
2006	854	357	143	115	11	1480	17.6
2007	1104	490	148	144	17	1903	28.5
2008	1235	587	200	186	19	2226	17.0
<b>2009</b>	<b>1384</b>	<b>360</b>	<b>204</b>	<b>160</b>	<b>18</b>	<b>2126</b>	<b>-4.5</b>
<b>2010</b>	<b>1570</b>	<b>428</b>	<b>220</b>	<b>175</b>	<b>20</b>	<b>2413</b>	<b>13.5</b>
<b>2011</b>	<b>1738</b>	<b>489</b>	<b>235</b>	<b>188</b>	<b>21</b>	<b>2672</b>	<b>10.7</b>
<b>2012</b>	<b>1913</b>	<b>551</b>	<b>253</b>	<b>203</b>	<b>23</b>	<b>2943</b>	<b>10.2</b>
<b>2013</b>	<b>2103</b>	<b>615</b>	<b>273</b>	<b>220</b>	<b>24</b>	<b>3235</b>	<b>9.9</b>
<b>2014</b>	<b>2298</b>	<b>685</b>	<b>289</b>	<b>238</b>	<b>26</b>	<b>3536</b>	<b>9.3</b>
<b>2015</b>	<b>2477</b>	<b>763</b>	<b>306</b>	<b>257</b>	<b>27</b>	<b>3831</b>	<b>8.4</b>
<b>2016</b>	<b>2662</b>	<b>850</b>	<b>325</b>	<b>278</b>	<b>28</b>	<b>4143</b>	<b>8.1</b>
<b>2017</b>	<b>2879</b>	<b>936</b>	<b>336</b>	<b>300</b>	<b>30</b>	<b>4481</b>	<b>8.1</b>
<b>2018</b>	<b>3124</b>	<b>1029</b>	<b>349</b>	<b>323</b>	<b>31</b>	<b>4857</b>	<b>8.4</b>
<b>Average annual growth (%):</b>							
<b>2008-2018</b>	<b>9.7</b>	<b>5.8</b>	<b>5.7</b>	<b>5.7</b>	<b>5.2</b>	<b>8.1</b>	

\*Figures in bold are forecasts.

## 7.3 Oceania visitor days

Oceania visitor days are expected to increase by 9.7 per cent a year over the next ten years, from 1.2 million in 2008 to 3.1 million in 2018 (Table 7.3). Australia remains the main contributor to the total Oceania visitor days.

**Table 7.3: Days spent by Oceania visitors (thousands)**

Year	Australia	New Zealand	Other Oceania	Total	Total Growth (%)
2001	221	22	11	254	-11.4
2002	219	21	12	252	-0.8
2003	536	39	21	596	136.4
2004	533	38	34	604	1.3
2005	653	51	58	762	26.1
2006	740	63	51	854	12.1
2007	947	85	72	1104	29.3
2008	1063	104	68	1235	11.8
<b>2009</b>	<b>1191</b>	<b>109</b>	<b>85</b>	<b>1384</b>	<b>12.1</b>
<b>2010</b>	<b>1359</b>	<b>119</b>	<b>92</b>	<b>1570</b>	<b>13.4</b>
<b>2011</b>	<b>1510</b>	<b>129</b>	<b>100</b>	<b>1738</b>	<b>10.8</b>
<b>2012</b>	<b>1665</b>	<b>141</b>	<b>108</b>	<b>1913</b>	<b>10.0</b>
<b>2013</b>	<b>1835</b>	<b>153</b>	<b>115</b>	<b>2103</b>	<b>9.9</b>
<b>2014</b>	<b>2007</b>	<b>167</b>	<b>123</b>	<b>2298</b>	<b>9.2</b>
<b>2015</b>	<b>2164</b>	<b>182</b>	<b>131</b>	<b>2477</b>	<b>7.8</b>
<b>2016</b>	<b>2325</b>	<b>198</b>	<b>139</b>	<b>2662</b>	<b>7.4</b>
<b>2017</b>	<b>2517</b>	<b>216</b>	<b>146</b>	<b>2879</b>	<b>8.2</b>
<b>2018</b>	<b>2736</b>	<b>236</b>	<b>153</b>	<b>3124</b>	<b>8.5</b>
<b>Average annual growth (%):</b>					
<b>2008-2018</b>	<b>9.9</b>	<b>8.5</b>	<b>8.5</b>	<b>9.7</b>	

\*Figures in Italic and bold are respectively estimates and forecasts.

### Australian visitor days

The average length of stay of Australian visitors increased by 6.2 per cent a year in the last nine years, from 10.6 days in 1997 to 17.9 days in 2008. It is projected to increase annually by 2 per cent over the next ten years to 22 days in 2018 (Table 7.1). As a result, the number of days spent by Australian visitors is forecast to increase by 9.9 per cent a year over the forecast period, from 1 million in 2008 to 2.7 million in 2018 (Table 7.3). The growth in Australian visitor days will be stronger in the short run than in the long run.

### New Zealand visitor days

In 2008, New Zealand visitors spent 18.4 days in PNG (Table 7.1). Their average length of stay is projected to increase by 2 per cent a year over the forecast period to 22.9 days in 2018. Following the expected positive growth in their average length of stay and visitor numbers, the number of days spent by New Zealand visitors is expected to increase by 8.5 per cent a year over the next ten years, from 104 000 in 2008 to 236 000 in 2018 (Table 7.3).

### Other Oceania visitor days

The average length of stay of Other Oceania visitors increased by 11.8 per cent a year in the last nine years, from 8.5 days in 1997 to 23.1 days in 2008, and it is projected to increase annually by 2 per cent over the next ten years to 28.7 days in 2018 (Table 7.1). This will make the number of Other Oceania visitor days to increase by 8.5 per cent a year over the forecast period, from 68 000 in 2008 to 153 000 in 2018 (Table 7.3).



## 7.4 Asian visitor days

Asian visitor days are forecast to increase by 5.5 per cent a year over the next ten years, from 587 000 in 2008 to 1.1 million in 2018 (Table 7.4). The main reasons for the increase in Asian visitor days are the expected increase in Asian visitor numbers and their average length of stay.

**Table 7.4: Days spent by Asian visitors (thousands)**

Year	Japan	Other Asia	Total	Total Growth (%)
2001	16	90	106	0.5
2002	25	74	100	-5.6
2003	28	145	173	73.7
2004	29	155	184	6.2
2005	59	231	290	57.8
2006	46	312	357	23.1
2007	37	453	490	37.2
2008	56	530	587	19.7
<b>2009</b>	<b>32</b>	<b>328</b>	<b>360</b>	<b>-38.6</b>
<b>2010</b>	<b>41</b>	<b>388</b>	<b>428</b>	<b>19.0</b>
<b>2011</b>	<b>47</b>	<b>442</b>	<b>489</b>	<b>14.1</b>
<b>2012</b>	<b>54</b>	<b>498</b>	<b>551</b>	<b>12.8</b>
<b>2013</b>	<b>60</b>	<b>555</b>	<b>615</b>	<b>11.6</b>
<b>2014</b>	<b>66</b>	<b>619</b>	<b>685</b>	<b>11.4</b>
<b>2015</b>	<b>73</b>	<b>690</b>	<b>763</b>	<b>11.4</b>
<b>2016</b>	<b>81</b>	<b>769</b>	<b>850</b>	<b>11.4</b>
<b>2017</b>	<b>90</b>	<b>846</b>	<b>936</b>	<b>10.0</b>
<b>2018</b>	<b>99</b>	<b>930</b>	<b>1029</b>	<b>10.0</b>
<b>Average annual growth (%):</b>				
<b>2008-2018</b>	<b>5.8</b>	<b>5.8</b>	<b>5.8</b>	

\*Figures in Italic and bold are respectively estimates and forecasts.

### Japanese visitor days

The average length of stay of Japanese visitors increased by 5.2 per cent a year in the last nine years, from 7.3 days in 1997 to 11.4 days in 2008. It is projected to increase annually by 2 per cent over the next ten years to 14 days in 2018 (Table 7.1). The expected increase in the average length of stay and Japanese visitor numbers will make the number of days spent by Japanese visitors to increase by 5.8 per cent a year over the forecast period, from 56 000 in 2008 to 99 000 in 2018 (Table 7.4).

### Other Asian visitor days

In 2008, Other Asian visitors spent an average of 21.2 days in PNG. Their average length of stay increased by 12.7 per cent a year in the last nine years, and it is projected to increase annually by 2 per cent over the next ten years to 25.9 days in 2018 (Table 7.1). As a result, the number of days spent by Other Asian visitors is forecast to increase by 5.8 per cent a year over the forecast period, from 530 000 in 2008 to 930 000 in 2018 (Table 7.4).

## 7.5 North American visitor days

Visitors from North America are expected to spend relatively more days in PNG. As a result, North American visitor days will rise by 5.7 per cent a year over the next ten years, from 200 000 in 2008 to 349 000 in 2018 (Table 7.5).

**Table 7.5: Days spent by North American visitors (thousands)**

Year	Canada	USA	Total	Total Growth (%)
2001	6	51	57	-25.6
2002	9	59	69	19.7
2003	9	67	76	10.5
2004	10	79	90	18.3
2005	14	103	117	30.3
2006	21	121	143	22.1
2007	30	118	148	3.8
2008	42	157	200	34.8
<b>2009</b>	<b>40</b>	<b>164</b>	<b>204</b>	<b>2.0</b>
<b>2010</b>	<b>45</b>	<b>175</b>	<b>220</b>	<b>8.0</b>
<b>2011</b>	<b>50</b>	<b>185</b>	<b>235</b>	<b>6.6</b>
<b>2012</b>	<b>55</b>	<b>198</b>	<b>253</b>	<b>7.9</b>
<b>2013</b>	<b>61</b>	<b>212</b>	<b>273</b>	<b>7.8</b>
<b>2014</b>	<b>65</b>	<b>224</b>	<b>289</b>	<b>6.0</b>
<b>2015</b>	<b>70</b>	<b>236</b>	<b>306</b>	<b>6.0</b>
<b>2016</b>	<b>76</b>	<b>249</b>	<b>325</b>	<b>6.0</b>
<b>2017</b>	<b>80</b>	<b>257</b>	<b>336</b>	<b>3.5</b>
<b>2018</b>	<b>85</b>	<b>264</b>	<b>349</b>	<b>3.7</b>
<b>Average annual growth (%):</b>				
<b>2008-2018</b>	<b>7.1</b>	<b>5.3</b>	<b>5.7</b>	

\*Figures in *Italic* and **bold** are respectively estimates and forecasts.

### Canadian visitor days

In 2008, Canadian visitors spent 21.9 days per person in PNG (Table 7.1). This implies that their average length of stay increased annually by 8.7 per cent in the last nine years. The average length of stay is projected to increase by 2 per cent a year over the forecast period to 26.7 days in 2018. Following the expected positive growth in their average length of stay and visitor numbers, the number of days spent by Canadian visitors is forecast to increase by 7.1 per cent a year over the next ten years, from 42 000 in 2008 to 85 000 in 2018 (Table 7.5). The growth in visitor days will be relatively stronger in the first half of the forecast period than in the second half.

### United States visitor days

The average length of stay of US visitors increased by 10.4 per cent a year in the last nine years, from 9.6 days in 1999 to 19.6 days in 2008. A positive economic growth and the low value of Kina are expected to motivate more Americans to travel to PNG and to stay for a longer period. Their average length of stay is projected to increase annually by 2 per cent over the next ten years to 23.9 days in 2018 (Table 7.1). As a result, the number of days spent by US visitors is forecast to increase by 5.3 per cent, from 157 000 in 2008 to 264 000 in 2018 (Table 7.5).

## 7.6 European visitor days

Europeans stay for relatively longer periods in PNG. European visitor days are forecast to grow annually by 5.7 per cent, from 186 000 in 2008 to 323 000 in 2018 (Table 7.6). The United Kingdom dominates the total European visitor days.

**Table 7.6: Days spent by European visitors (thousands)**

Year	Germany	United Kingdom	Other Europe	Total	Total Growth (%)
2001	13	22	19	54	-12.2
2002	10	20	22	52	-3.2
2003	19	28	37	84	61.2
2004	19	30	40	89	6.0
2005	11	30	42	83	-7.4
2006	15	41	59	115	39.6
2007	25	61	58	144	24.4
2008	40	79	68	186	29.7
<b>2009</b>	<b>35</b>	<b>68</b>	<b>57</b>	<b>160</b>	<b>-14.0</b>
<b>2010</b>	<b>39</b>	<b>74</b>	<b>62</b>	<b>175</b>	<b>9.4</b>
<b>2011</b>	<b>42</b>	<b>80</b>	<b>67</b>	<b>188</b>	<b>7.5</b>
<b>2012</b>	<b>45</b>	<b>86</b>	<b>72</b>	<b>203</b>	<b>7.9</b>
<b>2013</b>	<b>50</b>	<b>93</b>	<b>77</b>	<b>220</b>	<b>8.2</b>
<b>2014</b>	<b>55</b>	<b>102</b>	<b>81</b>	<b>238</b>	<b>8.2</b>
<b>2015</b>	<b>60</b>	<b>111</b>	<b>86</b>	<b>257</b>	<b>8.1</b>
<b>2016</b>	<b>66</b>	<b>121</b>	<b>91</b>	<b>278</b>	<b>8.1</b>
<b>2017</b>	<b>71</b>	<b>133</b>	<b>96</b>	<b>300</b>	<b>7.9</b>
<b>2018</b>	<b>76</b>	<b>147</b>	<b>101</b>	<b>323</b>	<b>7.9</b>
<b>Average annual growth (%):</b>					
<b>2008-2018</b>	<b>6.7</b>	<b>6.4</b>	<b>4.0</b>	<b>5.7</b>	

\*Figures in *italic* and **bold** are respectively estimates and forecasts.

### German visitor days

The average length of stay of German visitors increased by 3.3 per cent a year in the last nine years, from 11.8 days in 1999 to 17.1 days in 2008. It is projected to increase annually by 2 per cent over the next ten years to 20.9 days in 2018 (Table 7.1). As a result, the number of days spent by German visitors is forecast to increase by 6.7 per cent a year over the forecast period, from 40 000 in 2008 to 76 000 in 2018 (Table 7.6).

### United Kingdom visitor days

The average length of stay of visitors from the United Kingdom increased by 5.9 per cent a year in the last nine years, from 11.5 days in 1999 to 17.6 days in 2008. It is projected to increase annually by 2 per cent over the next ten years to 21.5 days in 2018 (Table 7.1). Following such an increase in the average length of stay, the number of days spent by the UK visitors is forecast to increase by 6.4 per cent a year during the forecast period, from 79 000 in 2008 to 147 000 in 2018 (Table 7.6).

### Other European visitor days

The average length of stay of Other European visitors increased by 4.3 per cent a year in the last nine years, from 11.8 days in 1999 to 16.5 days in 2008. It is projected to increase annually by 2 per cent over the next ten years to 20.1 days in 2018 (Table 7.1).

As a result, the number of days spent by Other European visitors is expected to increase by 4.0 per cent a year over the forecast period, from 68 000 in 2008 to 101 000 in 2018 (Table 7.6).

### **7.7 Rest of the world visitor days**

The average length of stay of visitors from the Rest of the World increased by 7.9 per cent a year in the last nine years, from 8.2 days in 1999 to 17.0 days in 2008. It is projected to increase annually by 2 per cent over the next ten years to 20.8 days in 2018 (Table 7.1). As a result, the number of days spent by visitors from the Rest of the World is expected to increase by 5.2 per cent a year over the next ten years, from 19 000 in 2008 to 31 000 in 2018 (Table 7.2).

## CHAPTER 8 VISITOR EXPENDITURE FORECASTS

### 8.1 Average and total visitor expenditure

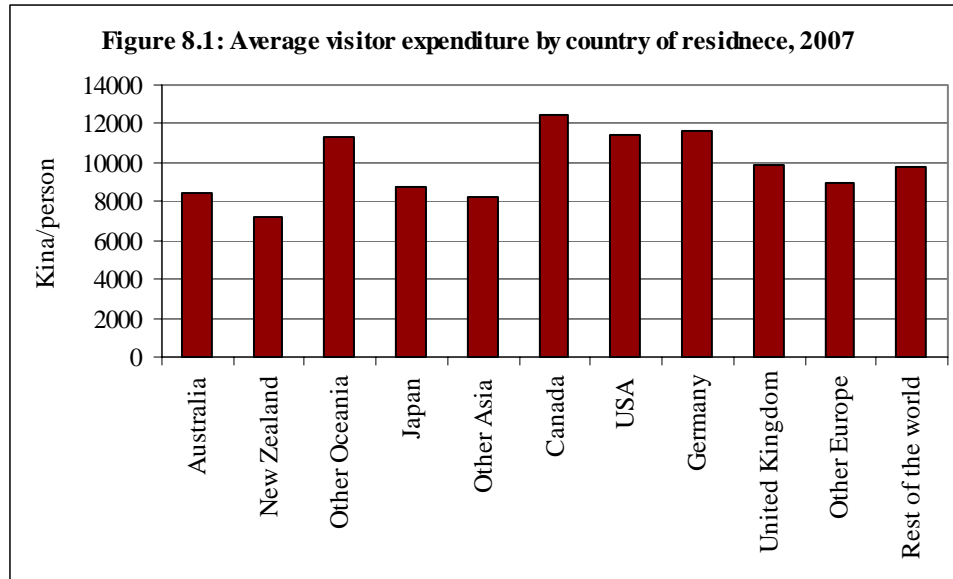
Information on the economic contribution of the tourism sector to the PNG economy is vital for the Government and the tourism industry to make planning and investment decisions in the tourism sector. However, such information is presently not available. A proper study on the economic impact of the tourism sector is urgently required to measure the economic contribution of the tourism sector in PNG. In the mean time, visitor expenditure which is the partial measure of the economic contribution of the tourism sector can be used by planners and investors to make their planning and investment decisions. Hence, forecasts of visitor expenditure are developed and presented in this study.

In this study, forecasts of visitor expenditure have been derived on the basis of visitor arrival forecasts (Chapter 6) and the projected average visitor expenditure. Econometric models could not be used to forecast the average visitor expenditure, mainly due to the lack of a continuous long time-series data on average visitor expenditure. In this study, PNG's average visitor expenditure trend from 1997 to 2007, with some qualitative adjustment, is used to project the most likely average visitor expenditure in PNG over the forecast period. The average visitor expenditure trend was estimated based on historical average visitor expenditure data that were given in TPA's Visitor Survey 2007 and earlier issues. Since TPA's Visitor Exit Survey was not carried out in 2008, expenditure data for 2008 are not available in order to use them to project average expenditure over the forecast period.

Figure 8.1 and Table 8.1 show that the average expenditure varies by tourism source market. The average expenditure data indicate that Canadian visitors spent more money than any other visitors in 2007. They spent an average of K12 400 per person in PNG.

The average visitor expenditure increased by an average of 14.3 to 20.8 per cent a year between 1997 and 2007 (Table 8.1). With the expected positive economic outlook for PNG's tourism source markets and the future inflation rate in PNG, the average visitor expenditure is projected to increase annually by 10 to 15 per cent over the next ten years. In 2018, the average visitor expenditure will range from K12 400 in the case of New Zealand visitors to K14 400 in the case of Canadian visitors.

As a result of a strong increase in visitor numbers and their average expenditure, the total tourism expenditure is forecast to increase by 13.3 per cent a year over the forecast period, from an estimated level of K960 million in 2008 to around K4 billion in 2018.

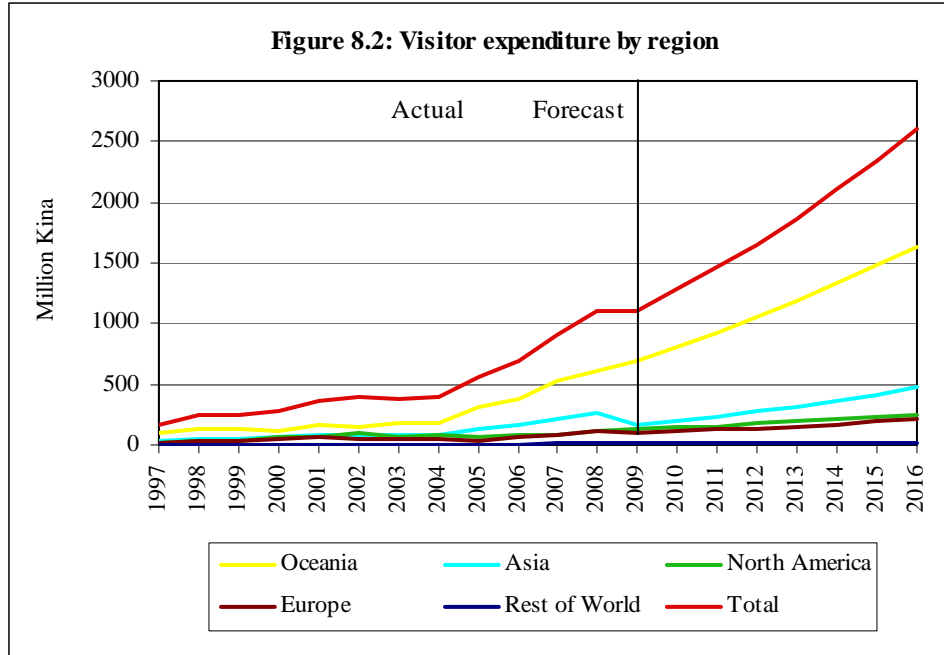


**Table 8.1: Average visitor expenditure (AVE) by country of residence**

Country of residence	AVE (Kina/person)		% Change per year	% Change per year
	2005	2007	2005 to 2007	2008 to 2018
<b>Oceania</b>				
Australia	7432	8407	6.4	<b>5.0</b>
New Zealand	6500	7253	5.6	<b>5.0</b>
Other Oceania	9266	11287	10.4	<b>5.0</b>
<b>Asia</b>				
Japan	8445	8789	2.0	<b>5.0</b>
Other Asia	7768	8259	3.1	<b>5.0</b>
<b>North America</b>				
Canada	11307	12455	5.0	<b>5.0</b>
USA	10528	11473	4.4	<b>5.0</b>
<b>Europe</b>				
Germany	13834	11582	-8.5	<b>5.0</b>
United Kingdom	8969	9867	4.9	<b>5.0</b>
Other Europe	9110	8986	-0.7	<b>5.0</b>
<b>Rest of the world</b>	8833	9790	5.3	<b>5.0</b>
<b>Total</b>	8040	8617	3.5	<b>5.0</b>

\*Figures in Italic and bold are respectively estimates and forecasts.

Source: Visitor Survey Report, TPA, 2007 and previous issues.



**Table 8.2: Expenditure incurred by all visitors (million Kina)**

Year	Oceania	Asia	North America	Europe	Rest of World	Total	Growth (%)
2001	160.3	76.7	69.7	60.4	2.0	369.1	28.6
2002	153.0	85.3	98.7	55.2	1.7	393.9	6.7
2003	174.8	90.3	68.9	49.2	1.2	384.4	-2.4
2004	182.2	90.1	76.1	48.5	1.6	398.5	3.7
2005	311.3	133.3	67.6	40.5	4.2	556.8	39.7
2006	375.6	163.1	88.2	60.5	6.5	693.8	24.6
2007	523.7	209.2	87.9	84.0	10.0	914.7	31.8
2008	602.1	262.3	122.0	113.1	11.3	1110.7	21.4
<b>2009</b>	<b>699.7</b>	<b>277.9</b>	<b>129.2</b>	<b>107.3</b>	<b>11.2</b>	<b>1225.3</b>	<b>10.3</b>
<b>2010</b>	<b>842.5</b>	<b>339.9</b>	<b>152.4</b>	<b>120.8</b>	<b>12.7</b>	<b>1468.2</b>	<b>19.8</b>
<b>2011</b>	<b>991.7</b>	<b>400.4</b>	<b>181.3</b>	<b>133.7</b>	<b>14.0</b>	<b>1721.1</b>	<b>17.2</b>
<b>2012</b>	<b>1132.7</b>	<b>465.2</b>	<b>213.6</b>	<b>148.5</b>	<b>15.4</b>	<b>1975.4</b>	<b>14.8</b>
<b>2013</b>	<b>1282.0</b>	<b>534.7</b>	<b>236.7</b>	<b>165.6</b>	<b>16.9</b>	<b>2236.0</b>	<b>13.2</b>
<b>2014</b>	<b>1441.9</b>	<b>613.8</b>	<b>258.1</b>	<b>184.8</b>	<b>18.5</b>	<b>2517.0</b>	<b>12.6</b>
<b>2015</b>	<b>1600.2</b>	<b>703.6</b>	<b>281.4</b>	<b>205.9</b>	<b>20.1</b>	<b>2811.1</b>	<b>11.7</b>
<b>2016</b>	<b>1769.4</b>	<b>805.4</b>	<b>306.8</b>	<b>229.5</b>	<b>21.7</b>	<b>3132.8</b>	<b>11.4</b>
<b>2017</b>	<b>1970.2</b>	<b>910.0</b>	<b>326.6</b>	<b>255.1</b>	<b>23.3</b>	<b>3485.2</b>	<b>11.2</b>
<b>2018</b>	<b>2200.7</b>	<b>1026.8</b>	<b>348.4</b>	<b>283.5</b>	<b>25.0</b>	<b>3884.3</b>	<b>11.5</b>
<b>Average annual growth (%):</b>							
<b>2008-2018</b>	<b>13.8</b>	<b>14.6</b>	<b>11.1</b>	<b>9.6</b>	<b>8.3</b>	<b>13.3</b>	

\*Figures in Italic and bold are respectively estimates and forecasts.

Oceania is PNG's largest contributor to the total visitor expenditure, followed by Asia, North America, Europe and the Rest of World.

## 8.2 Oceania Visitor expenditure

Oceania visitor expenditure is expected to increase by 13 per cent a year over the next ten years, from K602.1 million in 2008 to K2.1 billion in 2018 (Table 8.3). Australia will remain PNG's largest contributor to the total Oceania visitor expenditure.

**Table 8.3: Expenditure incurred by Oceania visitors (million Kina)**

Year	Australia	New Zealand	Other Oceania	Total	Total Growth (%)
2001	139.6	13.5	7.1	160.3	47.7
2002	134.1	11.7	7.2	153.0	-4.5
2003	154.5	9.7	10.6	174.8	14.3
2004	163.0	9.3	10.0	182.2	4.2
2005	272.5	15.5	23.3	311.3	70.9
2006	332.2	20.5	22.8	375.6	20.6
2007	454.8	33.7	35.2	523.7	39.4
2008	525.9	42.1	34.0	602.1	15.0
<b>2009</b>	<b>606.1</b>	<b>45.6</b>	<b>43.8</b>	<b>695.5</b>	<b>15.5</b>
<b>2010</b>	<b>712.3</b>	<b>51.0</b>	<b>49.1</b>	<b>812.3</b>	<b>16.8</b>
<b>2011</b>	<b>814.5</b>	<b>57.1</b>	<b>54.7</b>	<b>926.3</b>	<b>14.0</b>
<b>2012</b>	<b>924.7</b>	<b>64.0</b>	<b>60.7</b>	<b>1049.4</b>	<b>13.3</b>
<b>2013</b>	<b>1048.8</b>	<b>71.8</b>	<b>67.1</b>	<b>1187.7</b>	<b>13.2</b>
<b>2014</b>	<b>1181.4</b>	<b>80.6</b>	<b>73.7</b>	<b>1335.7</b>	<b>12.5</b>
<b>2015</b>	<b>1311.2</b>	<b>90.5</b>	<b>80.7</b>	<b>1482.4</b>	<b>11.0</b>
<b>2016</b>	<b>1449.7</b>	<b>101.5</b>	<b>87.9</b>	<b>1639.1</b>	<b>10.6</b>
<b>2017</b>	<b>1615.9</b>	<b>113.9</b>	<b>95.2</b>	<b>1825.1</b>	<b>11.3</b>
<b>2018</b>	<b>1808.0</b>	<b>127.8</b>	<b>102.7</b>	<b>2038.5</b>	<b>11.7</b>
<b>Average annual growth (%):</b>					
<b>2008-2018</b>	<b>13.1</b>	<b>11.7</b>	<b>12.0</b>	<b>13.0</b>	

\*Figures in Italic and bold are respectively estimates and forecasts.



### **Australian visitor expenditure**

The average expenditure of Australian visitors increased by 15.3 per cent a year since 1997 to K8 400 per person in 2007, and it is projected to increase annually by 5 per cent over the next ten years to K15 000 per person in 2018 (Table 8.1). As a result, their total expenditure is forecast to increase by 13.1 per cent a year over the entire forecast period, from K525.9 million in 2008 to K1.8 billion in 2018 (Table 8.3).

### **New Zealand visitor expenditure**

In 2007, New Zealand visitors spent around K7 200 per person while they were in PNG (Table 8.1). This is an increase of 15.5 per cent per annum since 1997. The average expenditure of New Zealand visitors is projected to increase by 5 per cent a year over the forecast period to K12 400 in 2018. With the expected increase in New Zealand visitor numbers and their average expenditure, their total expenditure will increase by 11.7 per cent a year, from K42.1 million in 2008 to K128 million in 2018 (Table 8.3).

### **Other Oceania visitor expenditure**

Visitors from Other Oceania (Oceania other than Australia and New Zealand) spent an average of K11 300 in 2007 (Table 8.1). Their average expenditure increased by 18.3 per cent a year since 1997, and it is projected to increase annually by 5 per cent over the next ten years to K19 200 per person in 2018. As a result of this as well as an expected strong growth in visitor numbers from Other Oceania, the total expenditure incurred by Other Oceania visitors is forecast to increase by 12 per cent a year during the forecast period, from K34 million in 2008 to K102 million in 2018 (Table 8.3).

## **8.3 Asian visitor expenditure**

Total Asian visitor expenditure is forecast to rise by 8.9 per cent a year, from K262 million in 2008 to K615 million in 2018 (Table 8.4). Japan is the main contributor to the total Asian visitor expenditure.

### **Japanese visitor expenditure**

The average expenditure of Japanese visitors increased annually by 16.6 per cent since 1997, from K2 500 in 1997 to K8 800 per person in 2007 (Table 8.1). It is projected to increase by 5 per cent a year over the next ten years to K15 000 in 2018. Following a strong expected growth in Japanese visitor numbers and their average expenditure, Japanese visitor expenditure in PNG will increase annually by 8.9 per cent over the next ten years, from K45.6 million in 2008 to K107 million in 2018 (Table 8.4).

### **Other Asian visitor expenditure**

Visitors from Other Asia spent an average of K8 200 per person in 2007 (Table 8.1). Their average expenditure increased annually by 15.5 per cent since 1997, and it is projected to increase by 5 per cent a year over the forecast period to K14 100 in 2018.

As a result of the expected strong growth in Other Asian visitor numbers and their average expenditure, expenditure incurred by Other Asian visitors is forecast to increase

by 8.9 per cent a year over the next ten years, from K216.7 million in 2007 to K508.1 million in 2018 (Table 8.4).

**Table 8.4: Expenditure incurred by Asian visitors (million Kina)**

Year	Japan	Other Asia	Total	Total Growth (%)
2001	29.1	47.6	76.7	18.7
2002	41.2	44.1	85.3	11.2
2003	41.0	49.3	90.3	5.9
2004	37.6	52.5	90.1	-0.2
2005	45.6	87.7	133.3	47.9
2006	37.5	125.6	163.1	22.4
2007	29.4	179.7	209.2	28.2
2008	45.6	216.7	262.3	25.4
<b>2009</b>	<b>26.3</b>	<b>138.2</b>	<b>164.4</b>	<b>-37.3</b>
<b>2010</b>	<b>34.7</b>	<b>168.0</b>	<b>202.8</b>	<b>23.3</b>
<b>2011</b>	<b>41.0</b>	<b>197.3</b>	<b>238.3</b>	<b>17.5</b>
<b>2012</b>	<b>48.6</b>	<b>228.5</b>	<b>277.1</b>	<b>16.3</b>
<b>2013</b>	<b>56.1</b>	<b>262.3</b>	<b>318.3</b>	<b>14.9</b>
<b>2014</b>	<b>63.8</b>	<b>301.0</b>	<b>364.8</b>	<b>14.6</b>
<b>2015</b>	<b>72.6</b>	<b>345.5</b>	<b>418.1</b>	<b>14.6</b>
<b>2016</b>	<b>82.6</b>	<b>396.5</b>	<b>479.1</b>	<b>14.6</b>
<b>2017</b>	<b>93.9</b>	<b>448.9</b>	<b>542.8</b>	<b>13.3</b>
<b>2018</b>	<b>106.9</b>	<b>508.1</b>	<b>615.0</b>	<b>13.3</b>
<b>Average annual growth (%):</b>				
<b>2008-2018</b>	<b>8.9</b>	<b>8.9</b>	<b>8.9</b>	

\*Figures in Italic and bold are respectively estimates and forecasts.

## 8.4 North American visitor expenditure

The recent visitor expenditure data suggest that visitors from the North America spend relatively more money than visitors from many other regions, mainly because they choose expensive tourism activities such as scuba diving. Their total expenditure amounted to K122 million in 2008, and it is forecast to increase by 8.8 per cent a year over the next ten years to K284.6 million in 2018 (Table 8.5). USA is the main contributor to the total North American visitor expenditure.

### Canadian visitor expenditure

The average expenditure of Canadian visitors increased by 18.9 per cent a year since 1997 to K12 500 per person in 2007, and it is projected to increase annually by 5 per cent over the next ten years to K21 300 per person in 2018 (Table 8.1). As a result of an expected strong growth in Canadian visitor numbers and their average expenditure, Canadian visitor expenditure is forecast to grow by 10.3 per cent a year over the next ten years, from K25.3 million in 2008 to K67.3 million in 2018 (Table 8.5).

### United States visitor expenditure

The average expenditure of visitors from the USA increased by 17.9 per cent a year since 1997 to K11 500 per person in 2007, and it is projected to increase annually by 5 per cent over the next ten years to K19 600 per person in 2018 (Table 8.1). As a result,

their total expenditure is forecast to increase by 8.4 per cent a year over the forecast period, from K96.7 million in 2008 to K217.3 million in 2018 (Table 8.5).

**Table 8.5: Expenditure incurred by North American visitors (million Kina)**

Year	Canada	USA	Total	Total Growth (%)
2001	8.8	61.0	69.7	0.6
2002	14.5	84.2	98.7	41.6
2003	9.6	59.3	68.9	-30.2
2004	10.0	66.1	76.1	10.5
2005	7.5	60.1	67.6	-11.2
2006	12.8	75.4	88.2	30.5
2007	17.2	70.7	87.9	-0.3
2008	25.3	96.7	122.0	38.7
<b>2009</b>	<b>24.6</b>	<b>103.6</b>	<b>128.2</b>	<b>5.1</b>
<b>2010</b>	<b>28.5</b>	<b>114.0</b>	<b>142.5</b>	<b>11.2</b>
<b>2011</b>	<b>32.4</b>	<b>124.0</b>	<b>156.4</b>	<b>9.7</b>
<b>2012</b>	<b>36.9</b>	<b>136.7</b>	<b>173.7</b>	<b>11.0</b>
<b>2013</b>	<b>41.9</b>	<b>150.7</b>	<b>192.7</b>	<b>11.0</b>
<b>2014</b>	<b>46.5</b>	<b>163.7</b>	<b>210.2</b>	<b>9.1</b>
<b>2015</b>	<b>51.5</b>	<b>177.9</b>	<b>229.3</b>	<b>9.1</b>
<b>2016</b>	<b>57.0</b>	<b>193.2</b>	<b>250.2</b>	<b>9.1</b>
<b>2017</b>	<b>61.7</b>	<b>204.9</b>	<b>266.5</b>	<b>6.5</b>
<b>2018</b>	<b>67.3</b>	<b>217.3</b>	<b>284.6</b>	<b>6.8</b>
<b>Average annual growth (%):</b>				
<b>2008-2018</b>	<b>10.3</b>	<b>8.4</b>	<b>8.8</b>	

\*Figures in Italic and bold are respectively estimates and forecasts.

## 8.5 European visitor expenditure

Like the North American visitors, European visitors spend relatively more money than visitors from Oceania and Asia. They spent around K113 million in PNG in 2008. Their total expenditure is forecast to increase by 8.8 per cent a year over the next ten years to K263.9 million in 2018 (Table 8.6). Presently, the United Kingdom and Germany are the first and second largest contributors to PNG's total European visitor expenditure.

### German visitor expenditure

The average expenditure of German visitors increased by 20.8 per cent a year between 1997 and 2007, from K3 000 per person in 1997 to K11 600 per person in 2008, and it is projected to increase annually by 5 per cent over the next ten years to K19 800 per person in 2018 (Table 8.1). Following such a strong growth in their average expenditure, the total expenditure of German visitors is forecast to rise by 9.9 per cent a year during the forecast period, from K28.0 million in 2008 to K71.9 million in 2018 (Table 8.6).

**Table 8.6: Expenditure incurred by European visitors (million Kina)**

Year	Germany	United Kingdom	Other Europe	Total	Total Growth (%)
2001	13.6	25.2	21.5	60.4	39.6
2002	9.5	21.3	24.4	55.2	-8.6
2003	10.6	17.3	21.3	49.2	-10.9
2004	16.2	14.2	18.1	48.5	-1.4
2005	8.3	13.2	19.0	40.5	-16.5
2006	13.0	17.9	29.6	60.5	49.5
2007	17.3	34.7	32.0	84.0	38.8
2008	28.0	46.1	38.9	113.1	34.7
<b>2009</b>	<b>25.8</b>	<b>41.1</b>	<b>33.4</b>	<b>100.3</b>	<b>-11.3</b>
<b>2010</b>	<b>29.1</b>	<b>46.3</b>	<b>37.6</b>	<b>113.0</b>	<b>12.6</b>
<b>2011</b>	<b>32.3</b>	<b>51.0</b>	<b>41.7</b>	<b>125.0</b>	<b>10.6</b>
<b>2012</b>	<b>36.2</b>	<b>56.6</b>	<b>46.1</b>	<b>138.9</b>	<b>11.1</b>
<b>2013</b>	<b>40.7</b>	<b>63.4</b>	<b>50.6</b>	<b>154.8</b>	<b>11.5</b>
<b>2014</b>	<b>46.1</b>	<b>71.1</b>	<b>55.4</b>	<b>172.6</b>	<b>11.5</b>
<b>2015</b>	<b>52.2</b>	<b>79.8</b>	<b>60.2</b>	<b>192.2</b>	<b>11.4</b>
<b>2016</b>	<b>59.2</b>	<b>89.5</b>	<b>65.5</b>	<b>214.1</b>	<b>11.4</b>
<b>2017</b>	<b>65.2</b>	<b>101.4</b>	<b>71.1</b>	<b>237.7</b>	<b>11.0</b>
<b>2018</b>	<b>71.9</b>	<b>115.0</b>	<b>76.9</b>	<b>263.9</b>	<b>11.0</b>
<b>Average annual growth (%):</b>					
<b>2008-2018</b>	<b>9.9</b>	<b>9.6</b>	<b>7.1</b>	<b>8.8</b>	

\*Figures in Italic and bold are respectively estimates and forecasts.

### United Kingdom visitor expenditure

The average expenditure of visitors from the United Kingdom increased annually by 14.3 per cent since 1997, from K3 100 per person in 1997 to K9 800 per person in 2007 (Table 8.1). It is projected to increase by 5 per cent a year over the next ten years to K16 800 in 2018. As a result of this, expenditure incurred by UK visitors in PNG is forecast to increase by 9.6 per cent a year over the forecast period, from K46.1 million in 2008 to K115 million in 2018 (Table 8.6).

### Other European visitor expenditure

The average expenditure of Other European visitors increased annually by 14.7 per cent since 1997, from K3 000 per person in 1997 to K9 000 per person in 2007 (Table 8.1). It is projected to increase by 5 per cent a year over the next ten years to K15 400 in 2018. Following a strong expected growth in Other European visitor numbers and their average expenditure, expenditure incurred by Other European visitors is forecast to increase by 7.1 per cent a year, from K38.9 million in 2008 to K76.9 million in 2018 (Table 8.6).

## 8.6 Rest of the world visitor expenditure

In 2007, visitors from the Rest of the World spent an average of K9 800 per person in PNG. Their average expenditure increased annually by 19.5 per cent since 1997, and it is projected to increase by 5 per cent a year over the next ten years to K16 700 in 2018. As a result of this, expenditure incurred by visitors from the Rest of the World is expected to increase by 8.3 per cent a year over the next ten years, from K11.3 million in 2003 to K25 million in 2018 (Table 8.2).

## **CHAPTER 9 SENSITIVITY ANALYSIS**

### **9.1 Sensitivity analysis**

A sensitivity analysis was carried out to analyse the impacts of changes in economic assumptions and other qualitative factors on PNG inbound tourism. Two scenarios (optimistic and pessimistic) have been identified for this purpose. The optimistic scenario is denoted as Scenario-1, baseline as Scenario-2 and pessimistic scenario as Scenario-3. These scenarios are discussed in detail in section 9.2.

### **9.2 Scenarios**

#### **9.2.1 Optimistic scenario (Scenario-1)**

The following assumptions are made under the optimistic scenario.

1. A strong economic growth prevails in all source markets. An additional 0.5 per cent economic growth is expected in all source markets. Moreover, the prices of food, travel and accommodation will further rise by additional 0.2 per cent in competitive destinations.
2. International travellers are expected to regain their travel confidence which was lost following the terrorist incidents in New York, Bali, Madrid and London and of course the current global financial crises and the presence of swine flu threat.
3. Reduced law and order problem is expected in Port Moresby and other urban centres of PNG.
4. Political stability continues over the forecast period.
5. A change is expected in the negative media image in overseas markets such as Australia, especially due to the appointment of a public relation agency in Australia and the opening of TPA office in Sydney.
6. Airline services are expected to improve markedly.
7. New Luxury hotels coming up in Port Moresby and other centres.
8. TPA's marketing and promotion budget increases significantly over the first few years of forecast period.

## **9.2.2 Base case scenario (Scenario-2)**

Base case scenario is the most likely scenario and reflects the present economic and political conditions. Forecasts of visitor arrivals, days and expenditure presented in Chapters 6, 7 and 8 are the base case forecasts.

## **9.2.3 Pessimistic scenario (Scenario-3)**

The following assumptions are made under the pessimistic scenario.

1. The economies in all source markets are expected to be weak (0.5 per cent reduction in the base case economic growth), and Kina will appreciate by 5 per cent against the foreign currencies. Moreover, a 0.2 percentage point reduction in the growth rate of the prices of food, travel and accommodation in competitive destinations.
2. International travellers continue to lose their travel confidence following the September-11 incidence and the bombings in Bali, Madrid and London.
3. The political unrest continues in Iraq and Afghanistan.
4. The problem of law and order in Port Moresby and other urban centres will be a matter of concern.
5. The country will have some short of political instability.
6. The negative media image in overseas markets such as Australia will not change.
7. Airline services will not change significantly.
8. TPA's marketing and promotional budget remains at the current level.

## **9.3 Results**

Forecasts of visitor arrivals, days and expenditure were developed under the optimistic and pessimistic scenarios and compared with the base case forecasts. The results are presented in Tables 9.1 to 9.3.

Results indicate that the number of total visitor arrivals will increase annually by 6.7 per cent over the forecast period under the optimistic scenario and 5.4 per cent under the pessimistic scenario compared with 6 per cent under the base case scenario (Table 9.1). This implies that the number of visitor arrivals will increase by an additional 0.6 per

cent a year (addition to the base case growth rate) under the optimistic scenario, and it will shrink by 0.6 percentage point under the pessimistic scenario.

**Table 9.1: Total visitor arrivals**

Year	Optimistic scenario	Base scenario	Pessimistic scenario	Change from base (level)		Change from base (%)	
				Optimistic scenario	Pessimistic scenario	Optimistic scenario	Pessimistic scenario
2000	58448	58448	58448	0	0	0.0	0.0
2001	54235	54235	54235	0	0	0.0	0.0
2002	53690	53690	53690	0	0	0.0	0.0
2003	56185	56185	56185	0	0	0.0	0.0
2004	59013	59013	59013	0	0	0.0	0.0
2005	69251	69251	69251	0	0	0.0	0.0
2006	77730	77730	77730	0	0	0.0	0.0
2007	104096	104096	104096	0	0	0.0	0.0
2008	119843	119843	119843	0	0	0.0	0.0
<b>2009</b>	<b>114055</b>	<b>112692</b>	<b>111332</b>	<b>1364</b>	<b>-1360</b>	<b>1.2</b>	<b>-1.2</b>
<b>2010</b>	<b>127743</b>	<b>125513</b>	<b>123330</b>	<b>2230</b>	<b>-2182</b>	<b>1.8</b>	<b>-1.7</b>
<b>2011</b>	<b>139449</b>	<b>136230</b>	<b>133122</b>	<b>3218</b>	<b>-3108</b>	<b>2.4</b>	<b>-2.3</b>
<b>2012</b>	<b>151516</b>	<b>147169</b>	<b>143012</b>	<b>4348</b>	<b>-4157</b>	<b>3.0</b>	<b>-2.8</b>
<b>2013</b>	<b>164225</b>	<b>158598</b>	<b>153265</b>	<b>5627</b>	<b>-5332</b>	<b>3.5</b>	<b>-3.4</b>
<b>2014</b>	<b>176974</b>	<b>169926</b>	<b>163303</b>	<b>7048</b>	<b>-6624</b>	<b>4.1</b>	<b>-3.9</b>
<b>2015</b>	<b>189073</b>	<b>180476</b>	<b>172461</b>	<b>8597</b>	<b>-8016</b>	<b>4.8</b>	<b>-4.4</b>
<b>2016</b>	<b>201566</b>	<b>191263</b>	<b>181731</b>	<b>10302</b>	<b>-9533</b>	<b>5.4</b>	<b>-5.0</b>
<b>2017</b>	<b>214797</b>	<b>202833</b>	<b>191827</b>	<b>11963</b>	<b>-11006</b>	<b>5.9</b>	<b>-5.4</b>
<b>2018</b>	<b>229445</b>	<b>215615</b>	<b>202963</b>	<b>13830</b>	<b>-12652</b>	<b>6.4</b>	<b>-5.9</b>
<b>Average annual growth (%):</b>							
<b>2008-2018</b>	<b>6.6</b>	<b>6.0</b>	<b>5.4</b>	<b>0.6</b>	<b>-0.6</b>	<b>5.3</b>	<b>-5.2</b>

\*Numbers in bold are forecasts.

In 2018, the number of total visitor days are forecast to increase to 5.2 million under the optimistic scenario and 4.6 million under the pessimistic scenario compared with 4.9 million under the base case scenario (Table 9.2).

Similarly, visitor expenditure will increase to K3.4 billion under the optimistic scenario and K3.0 billion under the pessimistic scenario compared with K3.2 billion under the base case scenario in 2018 (Table 9.3).

**Table 9.2: Total days spent by all visitors (thousands)**

Year	Optimistic scenario	Base scenario	Pessimistic scenario	Change from base (level)		Change from base (%)	
				Optimistic scenario	Pessimistic scenario	Optimistic scenario	Pessimistic scenario
2001	475	475	475	0	0	0.0	0.0
2002	476	476	476	0	0	0.0	0.0
2003	934	934	934	0	0	0.0	0.0
2004	972	972	972	0	0	0.0	0.0
2005	1259	1259	1259	0	0	0.0	0.0
2006	1480	1480	1480	0	0	0.0	0.0
2007	1903	1903	1903	0	0	0.0	0.0
2008	2226	2226	2226	0	0	0.0	0.0
<b>2009</b>	<b>2152</b>	<b>2126</b>	<b>2101</b>	<b>26</b>	<b>-26</b>	<b>1.2</b>	<b>-1.2</b>
<b>2010</b>	<b>2456</b>	<b>2413</b>	<b>2371</b>	<b>43</b>	<b>-42</b>	<b>1.8</b>	<b>-1.7</b>
<b>2011</b>	<b>2735</b>	<b>2672</b>	<b>2611</b>	<b>63</b>	<b>-61</b>	<b>2.4</b>	<b>-2.3</b>
<b>2012</b>	<b>3030</b>	<b>2943</b>	<b>2860</b>	<b>87</b>	<b>-83</b>	<b>3.0</b>	<b>-2.8</b>
<b>2013</b>	<b>3350</b>	<b>3235</b>	<b>3126</b>	<b>115</b>	<b>-109</b>	<b>3.5</b>	<b>-3.4</b>
<b>2014</b>	<b>3682</b>	<b>3536</b>	<b>3398</b>	<b>147</b>	<b>-138</b>	<b>4.1</b>	<b>-3.9</b>
<b>2015</b>	<b>4014</b>	<b>3831</b>	<b>3661</b>	<b>183</b>	<b>-170</b>	<b>4.8</b>	<b>-4.4</b>
<b>2016</b>	<b>4366</b>	<b>4143</b>	<b>3937</b>	<b>223</b>	<b>-207</b>	<b>5.4</b>	<b>-5.0</b>
<b>2017</b>	<b>4745</b>	<b>4481</b>	<b>4237</b>	<b>264</b>	<b>-243</b>	<b>5.9</b>	<b>-5.4</b>
<b>2018</b>	<b>5168</b>	<b>4857</b>	<b>4572</b>	<b>312</b>	<b>-285</b>	<b>6.4</b>	<b>-5.9</b>
<b>Average annual growth (%):</b>							
<b>2008-2018</b>	<b>11.4</b>	<b>10.8</b>	<b>10.3</b>				

\*Figures in bold are forecasts.



**Table 9.3: Expenditure incurred by all visitors (million Kina)**

Year	Optimistic scenario	Base scenario	Pessimistic scenario	Change from base (level)		Change from base (%)	
				Optimistic scenario	Pessimistic scenario	Optimistic scenario	Pessimistic scenario
2001	369.1	369.1	369.1	0	0	0	0
2002	393.9	393.9	393.9	0	0	0	0
2003	384.4	384.4	384.4	0	0	0	0
2004	398.5	398.5	398.5	0	0	0	0
2005	556.8	556.8	556.8	0	0	0	0
2006	693.8	693.8	693.8	0	0	0	0
2007	914.7	914.7	914.7	0	0	0.0	0.0
2008	1110.7	1110.7	1110.7	0	0	0.0	0.0
<b>2009</b>	<b>1113.0</b>	<b>1099.7</b>	<b>1086.4</b>	<b>13</b>	<b>-13</b>	<b>1.2</b>	<b>-1.2</b>
<b>2010</b>	<b>1306.0</b>	<b>1283.2</b>	<b>1260.9</b>	<b>23</b>	<b>-22</b>	<b>1.8</b>	<b>-1.7</b>
<b>2011</b>	<b>1494.5</b>	<b>1460.0</b>	<b>1426.7</b>	<b>34</b>	<b>-33</b>	<b>2.4</b>	<b>-2.3</b>
<b>2012</b>	<b>1703.3</b>	<b>1654.4</b>	<b>1607.7</b>	<b>49</b>	<b>-47</b>	<b>3.0</b>	<b>-2.8</b>
<b>2013</b>	<b>1936.8</b>	<b>1870.4</b>	<b>1807.5</b>	<b>66</b>	<b>-63</b>	<b>3.5</b>	<b>-3.4</b>
<b>2014</b>	<b>2189.0</b>	<b>2101.8</b>	<b>2019.9</b>	<b>87</b>	<b>-82</b>	<b>4.1</b>	<b>-3.9</b>
<b>2015</b>	<b>2453.6</b>	<b>2342.0</b>	<b>2238.0</b>	<b>112</b>	<b>-104</b>	<b>4.8</b>	<b>-4.4</b>
<b>2016</b>	<b>2744.5</b>	<b>2604.2</b>	<b>2474.4</b>	<b>140</b>	<b>-130</b>	<b>5.4</b>	<b>-5.0</b>
<b>2017</b>	<b>3066.3</b>	<b>2895.5</b>	<b>2738.4</b>	<b>171</b>	<b>-157</b>	<b>5.9</b>	<b>-5.4</b>
<b>2018</b>	<b>3433.9</b>	<b>3227.0</b>	<b>3037.6</b>	<b>207</b>	<b>-189</b>	<b>6.4</b>	<b>-5.9</b>
<b>Average annual growth (%):</b>							
<b>2008-2018</b>	<b>11.9</b>	<b>11.3</b>	<b>10.6</b>				

\*Figures in Italic and bold are respectively estimates and forecasts.



## **CHAPTER 10 SUMMARY AND CONCLUSIONS AND LIMITATIONS**

### **10.1 Summary**

The outlook for PNG tourism remains positive. The number of overseas visitors is forecast to increase by 8.1 per cent a year over the next ten years, from 120 134 in 2008 to 260 200 in 2018. The growth will be stronger in the first half of the forecast period than in the second half. Most overseas visitors will come to PNG for business purposes.

Oceania will remain PNG's largest regional source market, followed by Asia, North America and Europe. The number of visitors from Oceania is forecast to increase by 8.4 per cent a year during the forecast period to 152 600 in 2018. Among Oceanic countries, Australia will remain the largest individual source market for PNG's inbound tourism. The market is expected to grow by 8.6 per cent a year in the next ten years, from 60 000 in 2008 to 137 000 in 2018.

Asia will continue to be the second largest regional source market for PNG's inbound tourism. The market is expected to grow by an average of 9.2 per cent a year over the forecast period to 72 000 in 2018, largely due to a positive economic outlook for the major Asian countries and an expected increase in the number of flights by Air Niugini on the PNG–Japan route.

Among Asian countries, Japan remains the largest individual source market for PNG inbound tourism. The number of Japanese visitors is forecast to increase by 6.7 per cent a year during the forecast period, from nearly 5 000 in 2008 to 10 000 in 2018.

North America is a relatively matured market and it has returned a strong stable growth in the last three years. The number of visitors from this market is forecast to increase by 5.8 per cent a year over the next ten years to 18 500 in 2018, mostly for business and holiday purposes. Emerging tourist activities such as scuba diving and bird watching will continue to be the major attractions for North American tourists.

The USA dominates the North American market and remains the PNG's second largest individual source market after Australia. The number of visitors from the USA is expected to increase by 5.8 per cent a year over the forecast period, from 8 000 in 2008 to 15 200 in 2018. A majority of US visitors come to PNG for holidaying purposes.

Europe is another matured market which is dominated by business and holiday travel. Sustained positive economic growth and tourism promotion activities by TPA are expected to encourage more Europeans to travel to PNG. The number of European

visitors is forecast to increase by 4.3 per cent a year in the next ten years, from 10 900 in 2008 to 16 600 in 2018. Europe will continue to be one of the major regional sources of PNG's inbound tourism.

Among the European countries, the United Kingdom remains the largest individual source market for PNG's inbound tourism. The market is expected to grow by 5.7 per cent a year during the forecast period, from 4 500 in 2008 to 7 800 in 2018.

A fewer visitors are expected from the Rest of the World, which includes mostly African and South American countries.

The average length of stay (ALS) of overseas visitors has increased by an average of 7.3 per cent a year between 1997 and 2007. However, such a strong growth in the average length of stay is not expected to continue in the future, largely due to the slow pace of infrastructure development in PNG and a stiff competition with other regional destinations. Rather, the ALS is projected to increase annually by 4.6 per cent over the next ten years, from 18 days in 2008 to 30 days in 2018. As a result, the number of total visitor days is forecast to increase by 10.3 per cent a year over the next ten years, from around 2.2 million in 2008 to 6.0 million in 2018.

A proper study on the impact of the tourism sector in the PNG economy is urgently required to measure the economic value of the tourism sector in PNG. Information on the economic value of the tourism sector is vital for the Government and the tourism industry to make investment decisions in the tourism sector. In the absence of such information, visitor expenditure could be used as an alternative measure of tourism activity in monetary terms. Hence, forecasts of visitor expenditure are developed and presented in this study. The visitor expenditure forecasts have been derived on the basis of visitor arrival forecasts and their expected average expenditure in PNG.

The average visitor expenditure increased annually by 15.8 per cent between 1997 and 2007, from K2 500 in 1997 to K8 600 in 2007 (Table 8.1). It is projected to increase by 5 per cent a year over the next ten years to K15 000 in 2018. As a result of a strong increase in visitor numbers and their average expenditure, the total tourism expenditure is forecast to increase by 13.3 per cent a year over the forecast period, from an estimated level of K960 million in 2008 to around K4.0 billion in 2018.

## **10.2 Conclusions**

The outlook for inbound tourism in PNG remains positive. The inbound tourism sector is expected to grow strongly over the next ten years. It will grow more rapidly in the first half than in the second half of the forecast period. As a result, it will become one of the main sectors of the economy, contributing a large amount of foreign exchange to the Government's monetary reserve. The expected high growth in this sector is largely influenced by the increased Government funding for TPA for marketing and promotion initiatives, especially in Australia, Japan, USA, Europe, Russia and the Scandinavian

countries, an expected strong economic growth in source markets, the depreciation of Kina against the foreign currencies, and the likely switching of holiday destinations by travellers, from high-risk destinations (such as Bali) to low-risk destinations (such as PNG).

A sensitivity analysis involving two different scenarios, which represent the changes in political, social and economic conditions, was carried out to find any deviation in tourism forecasts under those scenarios compared with the base case scenario. Results of the analysis show that the inbound tourism sector could achieve a higher growth rate under the optimistic scenario and a lower growth under the pessimistic scenario. The analysis also alerts the tourism industry that the inbound tourism could easily and significantly shrink if the constraints further deteriorate.

### **10.3 Limitations of the forecasts**

Tourism forecasts developed in this study are based on both quantitative and qualitative techniques. Therefore, these forecasts are subject to errors that are associated with model specification and/or the assessment of qualitative factors.

It was not possible to include all explanatory variables in the econometric models of travel demand due to the unavailability of data. Moreover, the number of observations available for this study does not allow one to include many variables in the models. Otherwise, the degree of freedom will be lost. Hence, a specification error is likely to exist in the forecasts.

Further, the travel demand models used in this study are static models, meaning that the past relationship between visitor arrivals and their explanatory variables will remain the same in the future. This fundamental assumption could easily change as a result of changes in government policies and the behaviour of tourism consumers and suppliers.

In this study, influences of qualitative factors were subjectively assessed. Subjective assessment may vary by person and time, implying that assessed influences could be different than actual influences. In that case, forecasts presented in this study may or may not differ from the actual ones.

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