



**Republic of Palau**  
**PUBLIC SECTOR INVESTMENT**  
**PROGRAM (PSIP)**  
**2003-2007**

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## I. INTRODUCTION

The Public Sector Investment Program (“PSIP”) establishes Palau’s public sector infrastructure priorities over the next five years. The Program is in line with, and incorporates, prior planning infrastructure documents, including the ‘*Palau National Master Development Plan*’ (“PNMDP”) and the ‘*Economic Development Plan*’ (“EDP”). The PSIP also incorporated recommendations from the more recent ‘*Study for Promotion of Economic Development in the Republic of Palau*’ (“JICA Study”) and the ‘*Management Action Plan*’ (“MAP”). The report also takes into account various sectoral reports where relevant to infrastructure development issues.

In 1994, the Republic developed an Economic Development Plan in response to a requirement in the Compact of Free Association (COFA) (see below) and therein established a prioritized list of infrastructure projects deemed necessary to carry forward economic development to insure the appropriate expenditure of COFA Capital Improvement Project (CIP) funding. Since the publishing of that document, most of the projects on the primary priority list have been completed or are in the process of implementation.

In 1996, the Republic further published the Palau National Master Development Plan, which has subsequently been adopted by the Olbiil Era Kelulau as the nation’s official development plan. This document also established a list of infrastructure projects that were deemed essential to a coherent development of Palau’s economy in addition to establishing macro and micro economic strategies for such growth.

In addition to these primary planning documents, numerous sectoral reports have been written since the inception of the Compact that enunciate infrastructure needs in line with sector development plans. These recommendations have been taken into account in the development of this PSIP.

Because most of the COFA funding earmarked for capital expenditures has already been spent or obligated on past and current projects, it is essential that the Republic establish a revised public sector investment plan that takes into account current economic realities and extrapolates from prior plans and completed projects. This effort is essential due to the lack of a current funding plan to meet the nation’s near and long-term infrastructure needs and in order to parallel infrastructure development efforts with other development plans. It is also essential in order to officially document prioritized funding requirements when seeking overseas development assistance.



## **II. CURRENT INFRASTRUCTURE PLANS**

### **A. The Palau National Master Development Plan**

The PNMDP, which was adopted by the Olbiil Era Kelulau as the Republic's long term developmental planning document, is a wide-focused roadmap that articulates economic and social development priorities for the Republic, including infrastructure priorities. The development vision of the PNMDP is to substantially enhance the quality of life of Palauan citizens in both the long and short terms. In order to achieve this primary vision, the PNMDP establishes a number of development goals:

- Increase economic growth per capita on a sustained basis;
- Share the benefits of economic growth on an equitable basis to all different economic sectors, and establish a planning framework for future expenditures;
- Cooperate with foreign interests to establish genuine stakeholder development; and
- Incorporate Palauan development priorities within the global environment to enhance the natural environment.

Within the context of these broad goals, the PNMDP further establishes infrastructure development strategies.

- Infrastructure Institutions -- To provide, on a sustainable basis, the required infrastructure funding and services in an economically efficient manner, and of a high standard throughout Palau, to improve equitable access and to underpin the expansion of economic activities.
- Infrastructure Performance -- To create a more commercial and competitive national economic environment by formalizing the relationship between the private and public sectors and integrating public infrastructure planning with clear objectives.
- Public Sector Improvement Program – To enhance the performance of public sector investment programs and projects through improved evaluation, prioritization and monitoring techniques, as incorporated in a comprehensive public sector investment program process.

Within the context of these development strategies, the PNMDP then establishes infrastructure priorities in a number of areas, including:

- Road Transportation;
- Sea Transportation;



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

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- Air Transportation;
- Electric Power;
- Water Supply;
- Wastewater;
- Solid Waste;
- Telecommunication;
- Infrastructure; and
- Land Use Planning.

## **B. The Economic Development Plan**

The EDP was prepared prior to the PNMDP, pursuant to Section 231 of the Compact of Free Association (COFA). The plan was defined in Article VI, Section 461(j) of the Compact as:

A documented program of annual development which identifies the specific policy and project activities necessary to achieve a specified set of economic goals and objectives during the period of free association. Such a document should include an analysis of population trends, manpower requirements, social needs, gross national product estimates, resource utilization, infrastructure needs and expenditures, and the specific private sector projects required to develop the local economy of Palau.

The broad objectives of the EDP were to:

- Lay the foundations for achieving economic self-reliance based on a free and vibrant market economy;
- Develop Palau's human, natural and technological resources in a framework of environmental and cultural protection; and
- Achieve measurable and certain progress toward balanced development of the various states.

The policies and strategies to help implement the development plan were defined as follows:

- Develop a self-reliant production-based market economy;
- Reduce and streamline the public sector;
- Develop natural resources to generate income;
- Develop human resources;
- Balance regional economic integration and development; and
- Conserve environmental and cultural assets.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

In order to accomplish these stated objectives, policies and strategies, Volume 2 of the EDP established a list of 11 priority and 20 non-priority infrastructure projects to be undertaken with Compact Section 212(b) funding (approximately \$52 million) over the duration of the COFA. The non-priority projects were to be undertaken upon the completion of the priority projects, if funds remained. A majority of the priority projects and a good number of the non-priority have been completed. In addition, a number of the projects could be classed as 'On-going Projects'. (See Subsection C below)

### **C. Infrastructure Project Review Under PNMDP and EDP**

In line with the PNMDP and the EDP, most of the Section 212(b) funds have been either expended or obligated. The following is a brief outline of such projects.

1. Palau National Water Systems Improvement. This project, instituted prior to the Compact and included in the EDP, involved the construction of water systems in rural areas, as well as improvements to portions of the Koror-Airai water system. Significant work was undertaken, under this project heading, to up-grade the water quality throughout Palau. The project is on-going.

2. National Road Improvement/Repair Project. This project involved repair work, purchase of heavy equipment and development of a new hot-mix asphalt plant. Significant work was undertaken to seal and pave the main roads in Koror and Airai. In addition, the asphalt plant was purchased and is currently in use in Peleliu. However, heavy equipment was not purchased. This project is on-going.

3. Palau National Power Plant Rehabilitation. This project, which provided generators for the Koror Power Plant, was completed under cost.

4. The Palau National Gymnasium and Sports Facilities Project. The National Gymnasium was completed prior to the 1998 Micronesian Games held in Palau and is in continual heavy use by the public today.

5. The New Airport Terminal Construction. This project was not undertaken using Compact funding. However, the project was completed in April, 2003 through Japanese grant aid.

6. Palau National Educational Facilities Construction, Renovation and Equipment Replacement. This project, as revised in scope, was completed. Work included the construction of the Ministry of Education office complex, the new PCC classroom building and certain equipment.

7. National Health Facilities Improvement Project. This project, as revised in scope, was completed. Work included the construction of three dispensaries in



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

Babeldaob and one in Peleliu. Original plans to develop a staff apartment and pier were not undertaken.

8. State Projects. Extra funding over original estimates was expended to assist the states in their own infrastructure development.

9. Palau National Capital Construction, Phase I. Phase I of the Capital construction project has been completed. This phase involved mass earthmoving at the site and contributed to the current Phase II of the project that involves the actual construction of the buildings.

10. School Rehabilitation. This project had an original scope of repairing existing schools in Babeldaob and in outer islands. While some rehabilitation did occur, most of the funding went to the construction of numerous new classrooms. This project is on-going.

11. Intra-Babeldaob Access Roads Project. This project, intended to develop a primary road system between the ten states of Babeldaob has not been undertaken. This project is still important in order to connect villages to the Compact Road.

12. Outer Island Electric Power Systems Project. This project includes the design and construction of electrical power systems on five island states (Peleliu, Angaur, Kayangel, Sonsorol and Hatohobei). The project has been completed in all but Hatohobei state, which is currently under contract.

13. Koror-Airai Water Systems Improvement. This project included the alleviation of problems in the water system through the expansion and construction of new components. The project was completed.

14. Babeldaob Electric Power Transmission and Distribution Project. This project has been completed and involved putting west coast and east coast distribution lines and construction of a central distribution system.

15. National Capital, Phase II. Phase II of the Capital project is underway and has been funded partly by a low interest loan from the Republic of China.

16. National Museum, Archive and Library. The new Belau National Museum and Archive has been funded by the Republic of China via a grant of \$2.5 million and should be completed sometime in late 2003. The library portion of this project has not been undertaken and remains a priority infrastructure project.

17. Palau Prison Facility. This project, targeted for Babeldaob, has not been undertaken. It remains a priority project.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

18. Court Annex. The Court Annex has been completed next to the Supreme Court, an addition of two new courtrooms and associated offices.

19. Babeldaob and Outer Island Public Safety Substations. This project, intended to extend more comprehensive police services to Babeldaob, has not yet been undertaken. It remains a priority.

20. Central Palau High School Construction Project. This project has not been undertaken and remains a high priority infrastructure project.

21. Agricultural Station. This project, which relocated the Agricultural Center to Aimeliik state, has been completed. The project includes a store, warehouse, demonstration area and a farmer's market.



### III. SUPPLEMENTAL INFRASTRUCTURE PLANS

#### A. ‘Study for Promotion of Economic Development in the Republic of Palau’ (‘JICA Study’).

The EDP was a five-year plan intended to address immediate infrastructure needs using Compact Section 212(b) funding. In addition to undertaking many of the priorities set forth in the EDP, other projects were funded out of this Compact funding source as needs arose. As this plan had a life of only 5 years, and as most of the Compact capital funding has been expended or obligated on projects identified in the Plan, it was deemed necessary to undertake a revision of the five-year plan. Because this infrastructure planning effort directly relates to long-term and mid-term economic and social issues, it was determined necessary to undertake the revision of the PNMDP in order to insure that Palau’s development efforts remained focused.

To accomplish this revision, the Republic sought assistance from the Japanese Government, which resulted in the development of the JICA Study. This comprehensive review and revision of the PNMDP is a three-volume set that sets the following objectives:

- To formulate long-term integrated development strategies and a mid-term infrastructure improvement plan, which aims to harmonize economic development with environmental protection.
- To conduct pre-feasibility studies for priority investment project packages for priority sectors identified in the plan; and
- To assist Palauan counterpart personnel in strengthening their planning capability through the implementation of the Study.

In arriving at its infrastructure recommendations, the Study considered a broad list of ‘key issues’, including:

- The natural, human and cultural resource base;
- The national interest and national security;
- Institutions for economic development and macroeconomic management;
- The public sector and fiscal issues;
- The labor market;
- The financial sector;
- Foreign direct investment;
- External relations and ODA assistance;



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- The terrestrial environment;
- The costal and marine environment; and
- The living environment.

Within the context of these key issues, the JICA Study developed both long term and medium term development strategies. Each of these strategies focuses on both the sectors of the economy in need of development, as well as on social and environmental concerns. Sectors and concerns include:

- Tourism;
- Agriculture;
- Aquaculture;
- Fisheries;
- Land use;
- Environmental management; and
- Social strengthening, including labor, human resource development and health.

## **B. The Management Action Plan (MAP).**

The Management Action Plan was developed by the President to serve as the new Administration's strategic roadmap for the reform of the Executive Branch of the government. The MAP incorporated many of the recommendations made in both the PNMDP and the EDP. Like these two plans, it sets forth short-term and long-term recommendations based upon economic and social factors, which are to be implemented by various ministries, departments, agencies and entities of the Palau National Government. The MAP was adopted by the President through Presidential Directive No. 01-007 in February of 2001.

While more focused on internal governmental reform, the strategies and principles of the MAP are very relevant in the formulation of a future vision of infrastructure development. Its primary goals and objectives include:

- The improvement of the quality of life of the Palauan people;
- An emphasis on quality services with an aim of reducing the costs of such services;
- Ensuring the accountability of the government;
- Developing viable governmental structures;
- Fostering a strong sense of community;
- Cost containment;
- Government right-sizing; and
- Incorporating the PNMDP into the planning process.



## IV. ECONOMIC DEVELOPMENT STRATEGY FRAMEWORK

Taking into account the above-mentioned plans, a medium-term development strategy framework has been established. This development strategy framework is designed:

*To develop and strengthen the private sector while protecting the environment and reducing the extent and involvement of the government in domestic economic activity.*

This strategy framework is composed of ‘Economic Policy’ and ‘Fiscal Policy’ framework guidelines.

### A. Economic Policy.

The Economic Policy consists of four primary priorities:

1. The development of economic institutions by significantly improving the regulatory environment through the passage of effective and transparent laws governing key aspects of Palau’s economy including banking, foreign investment, tax and labor;
2. The development of Palau’s infrastructure base within a clear planning framework, to include infrastructure for water, wastewater, solid waste management, energy, communications and transportation;
3. The development of sectors of the economy that have the potential to support sustainable economic growth, including tourism, fisheries, aquaculture, agriculture, trade (by way of transshipment opportunities) and finance (establishment of Palau as a regional financial center); and
4. The containment of the cost of government through consistent balanced budgets.

### B. Fiscal Policy.

The Fiscal Policy focuses on the relationship of expenditures and revenues.

1. Expenditures. Growth of expenditures should not exceed the growth of revenues. This is accomplished through:

⇒ Streamlining government structures;



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- ⇒ Restructuring governmental personnel;
- ⇒ Outsourcing, where possible, governmental services; and
- ⇒ Improving accountability and productivity of expenditures.

2. Revenues. The fiscal policy also seeks to increase revenues at a pace that outstrips governmental expenditures. This can be accomplished through:

- ⇒ Strengthening collection of government taxes and fees;
- ⇒ Expanding the revenue base through comprehensive tax reform; and
- ⇒ Aggressively pursuing overseas development assistance (ODA).

The successful implementation of this fiscal policy will go a long way towards ensuring the government's ability to successfully fund the infrastructure necessary for Palau's future economic growth.



## V. BRIEF SECTORAL ANALYSIS

### A. Priority Areas

In the area of infrastructure development, the Public Sector Investment Program incorporates the current and realistic recommendations of all of the above mentioned studies in order to establish a logical, affordable and transparent investment plan to guide Palau's development future. The Program is quite ambitious, especially due to the fact that most CIP funds received under the COFA have already been spent on planned projects. Consequently, the Program will require the mobilization of all potential revenue and investment sources. The PSIP was developed with the recognition that 2009 (the end of the COFA 'Economic Relations' provisions, unless renegotiated) must serve as a definitive focus point for the completion of primary infrastructure priorities. The Program therefore seeks to identify the necessary infrastructure required to permit significant and steady revenue increases by this date.

Taking each of these earlier mentioned development plans into account, a brief description of the guiding rationales, by sector, for the selection of priority infrastructure projects follows.

#### 1. Tourism

Tourism is clearly the engine that will drive Palau's economic growth. It is therefore imperative that Palau maximize the contributions of the tourism sector to the Palauan economy by:

- ⇒ Diversifying our tourism product base;
- ⇒ Expanding our labor and human resources;
- ⇒ Strengthening our planning and development capacity;
- ⇒ Establishing a regulatory framework that ensures minimum tourism industry standards;
- ⇒ Enhancing our capacity to effectively protect our tourism assets base; and
- ⇒ Ensuring that the benefits of tourism flow to the local community.

Palau has witnessed no shortage of studies and reports concerning its tourism industry. Unfortunately, little has been achieved in the way of implementation. An important reason is that the tourism sector has not had an adequate administrative structure to take responsibility for the overall development of the industry. The Administration has consequently established the National Tourism Unit to provide such structure and to act as a 'change agent' for growth.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

In addition to adding the necessary administrative institutions that will implement the goals and objectives of the tourism industry, Palau must increase the scope and number of its tourism opportunities. To accomplish this, Palau must develop a private sector framework conducive to tourism growth. It must also establish the necessary transportation infrastructure to permit access to such opportunities. Other basic infrastructure, such as water, sewers, telecommunications and electrical power must also be put into place to meet the needs of an expanded tourism industry. Most importantly, airline and airport capacity must be expanded and strengthened to permit tourists to travel, without undue burdens or expenses, to Palau.

## **2. Agriculture**

While the potential for development of agricultural products, especially at the export level, is somewhat limited, the establishment of a viable agriculture sector would have a great impact on the current balance of trade deficit and upon employment. Possibly of even greater importance is the issue of food security. In this regard, priority should be given to expanding production capacity to meet domestic demand first. To encourage increased domestic production, incentives should also be developed to focus efforts on agriculture products consistent with domestic consumption demand and with export potential.

In order to respond to these broad economic issues related to the establishment of a viable agricultural sector, basic capacity must be established. This capacity must be provided at both the subsistence and the market levels. It also requires an adequate market system, including a central market, a stronger technical base, a viable quarantine system, a broadening of plant diversity and significant training opportunities. Finally, the eradication of the fruit fly, as well as other agricultural pests, must be undertaken in the most cost-effective and efficient manner.

## **3. Fisheries**

a. Fishing. In the area of fisheries, greater returns, on a sustainable basis, and increased local involvement in Palau's offshore and inshore marine resources must occur. Palau must also maintain an extraction level for subsistence while protecting the natural marine environment for tourism and cultural purposes. In addition, the basic infrastructure for curing and preserving fish and fish products must be put into place. Finally, study must be made into the potential for value added on-shore fish-processing capacity.

b. Aquaculture. The establishment of a viable aquaculture is critical in order to preserve our natural marine environment for subsistence and commercial purposes and the capacity will require considerable technical assistance, as the art of aquaculture is



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

quite sophisticated and requires meticulous maintenance. As with all fish products, adequate curing and preservation capacities are also required.

#### **4. Trade**

Due to its location, Palau has great potential as a transshipment port for the region. However, to move into this growth sector, port capacities must be clearly identified and significantly expanded. In order to accomplish this, a comprehensive plan must be developed.

#### **5. Light Manufacturing**

A light manufacturing industry would require a comprehensive infrastructure system, foreign direct investment and an expanded technical base. One of the priorities of such light manufacturing is the employment opportunities made available to Palauan citizens. We need to establish the vehicles to ensure that funds expended in the Republic stay in the Republic and in turn generate additional and expanded income opportunities. This is especially important for tourism industry products.

### **B. Infrastructure Requirements**

#### **1. Transportation.**

a. Roads. Without a comprehensive road system, economic development will not occur at the rate necessary to replace Compact revenues. It is therefore a very high priority. In addition to completing the Compact Road, the Republic must improve access roads throughout the nation. It must also repair the existing paved roads and streets. This must all be accomplished within the context of an expanded and improved management, maintenance and technical capability.

b. Airport/s. Due to the overriding importance of tourism to the achievement of economic development, the expansion and improvement of the International Airport in Airai is imperative. This airport must be internationally accepted and economically efficient in order to cope with current and projected demands as well as to enhance competition by encouraging multiple carriers to establish direct flights. The issue of runway expansion must be reviewed in light of new airplane technology. The current runway must also be maintained to Federal Aviation Agency standards. Finally, internationally acceptable guidance systems must be put into place in order to encourage direct flights from regional neighbors. Consideration must also be given to the improvement of Palau's other two airports in Peleliu and Angaur, as well as consideration of the construction of commuter airports on other outer islands.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

c. Seaport/s. On the general level, Palau must establish, maintain and manage ports and marine facilities to meet the requirements for international shipping, internal transport, tourism and the development of marine resources. Currently, the Malakal port in Koror is Palau's only commercial port. Although the port is presently handling approximately 120,000 tons of cargo per year and has additional cargo capacity, backyard space is insufficient, especially for operation of containers. In addition, the port is inefficient for the transfer of fuel to power plants. The port is currently not deep enough to handle larger ships. It is therefore essential that a comprehensive port study be undertaken to define the appropriate use and expansion needs of the port, and also the use of alternate ports. In addition to port expansion and improvement, sea marker installation is necessary to improve safe navigation.

## **2. Water.**

Since 1993, a number of projects have been undertaken in Palau. Consequently, all of Palau's states, except Kayangel, Hatohebei and Sonsorol state, have their own community water supply systems. However, projected economic expansion will require further enlargement of the water systems throughout Palau. At a minimum, a reliable safe water system must be provided to all states of the Republic in a cost effective manner. In addition, existing water supply systems and watershed areas must be maintained to supply a sufficient supply of safe water. In order to do this, a comprehensive charge-back system must be contemplated.

## **3. Wastewater.**

As with water, major expenditures have been made to improve and expand Palau's wastewater system. In fact, in Koror state, a major expansion project is near completion. Despite this fact, there are still many households unconnected to the sewer system in Koror and septic systems in outlying states. It is consequently imperative that a comprehensive wastewater study be undertaken to identify expansion and improvement needs in Koror and in the outlying states.

## **4. Solid Waste.**

The current solid waste facility (open dump) in Koror is already over capacity and inappropriate. In addition, it is in a very poor location, near a marina, hotel, restaurant, tourist diving operation, residential area and the Palau International Coral Reef Center. In order to respond to this major problem, the National Government has identified a new solid waste site on the border of Airai and Aimeliik, which has been agreed to by both states via a memorandum of understanding. In addition to the inadequacies of the current dumpsite, there are insufficient vehicles and staff for collection and hauling of garbage. This situation is made worse by the lack of expertise regarding solid waste management. Due to the potential impact of the current situation on public health, it is imperative that a



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

comprehensive waste management study be undertaken. This study should set forth a final plan to develop the new waste management facility site, to develop transfer stations in Koror and elsewhere, as appropriate, and to identify the necessary equipment for haulage and collection. The study should also assess and provide recommendations regarding solid waste needs in other states. Finally, upon the opening of the new facility, the old dump will have to be closed.

### **5. Energy.**

The Palau Public Utility Corporation (PPUC) generates almost all of the electric power in Palau. The current capacity of PPUC is approximately 30 Megawatts. New power generation systems have also recently come on line in Peleliu, Angaur and Kayangel. Because the PPUC rate structure includes a replacement cost component, the replacement of existing generators must be undertaken by the corporation.

The Republic is committed to pursuing renewable energy sources, where feasible and affordable, in order to reduce dependence of fossil fuels and to protect the environment for future generations. In this effort, the government is currently studying the potential for Ocean Thermal Energy Conversion (OTEC) to replace at least a portion of the diesel generator power system. The National Government is also studying the feasibility of incorporating solar and wind power options into the nation's energy portfolio.

### **6. Telecommunications.**

As with electricity, telecommunications is managed by a quasi-governmental corporation, the Palau National Communications Corporation (PNCC). PNCC provides domestic and international telephony, Internet and data, cellular phone, and cable television services for the Republic of Palau. The Corporation has instituted a schedule of rates that take into account the payback on the loan provided by the United States Rural Utilities Service (RUS) to install the current telephone system. However, currently, due to changes in international revenues, the rate schedule does not provide sufficient funds for all projected required capital investments.

#### **a. Domestic**

PNCC has in place a domestic Fiber Optic Network that serves all of Babeldoab and Koror. This system is linked to the states of Kayangel and Angaur by digital microwave.

This system needs to be upgraded to provide broadband capability, connectivity, and redundancy to support future growth that was not provided for in the original system installation. The existing system was designed in 1994 and installed 1996 with only the capacity to support projected needs for voice services and did not take in account the coming of the Internet age or the advances in cellular technology. The current fiber optic



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

equipment is OC3 (55Mbs) and is completely utilized in significant segments of the network. Substantial segments of the network do not have redundancy (SONET Ring) due to lack of capacity.

The upgrade of the fiber optic network is essential for economic growth, development, and equitable access throughout Palau. At the present time PNCC's ability to serve areas outside of Koror at high data speeds is limited. With this upgrade of the electronics on the fiber optic network, PNCC would be able to provide Wide Area Networks (WANs) for all of Palau; giving government, education, health, and business the ability to connect all states within Palau at Broadband speeds.

b. International

1. Satellite Systems. At the present time Palau has only satellite service for international connections. The satellite connection is provided by one earth station. Having only one gateway for international connectivity puts Palau in a vulnerable position in regards to disruptions of international communications. Indeed communications to the world have been interrupted several times in the recent past due to electrical or natural disasters. PNCC is currently constructing a separate earth station site so as to have redundancy and diversity of routing. This site will be equipped initially to provide only essential emergency communications capability but will be capable of expansion to provide more capacity. A project to provide increased capacity at this second earth station is required so that network capacity for the welfare and economy of Palau is assured in the event of a prolonged outage at the primary earth station.

2. Trans-Oceanic Fiber Optic Submarine Cable Transmission System. A study should be undertaken to determine the need, feasibility and potential funding sources to bring a trans-oceanic fiber optic submarine cable transmission system to Palau. If the study indicates positively that a submarine cable transmission system is feasible on a sustainable basis, a project to build a fiber optic submarine cable transmission system would give Palau the potential for increased economic growth.



## VI. PROPOSED INFRASTRUCTURE PROJECTS

This section of the Public Sector Investment Program (PSIP), lists Capital Improvement Projects (CIP), in four categories, each with different priorities. These are:

- **Major On-Going** Projects (funded);
- **Tier A** Priority Projects (un-funded);
- **Tier B** Priority Projects (un-funded); and
- **Tier C** Priority Projects (un-funded).

Tier A, B & C priority projects are further prioritized within their tiers. Inclusion in a certain tier is not solely based on “priority” or importance of a project. Often a very important project is dependent upon the completion of a related project. An example is the M-Dock Dump Closure Project, which must wait for the completion of a new Solid Waste Management Facility before it may commence. Therefore, the Solid Waste Management Facility Project must be a higher tier project than the M-Dock Dump Closure Project, because of timing.

Funding sources for the listed projects are not identified. However, as a policy matter, every attempt should be made to seek financing mechanisms for projects that have a significant revenue stream. Those that do not should be financed within available revenue sources.

### A. Major On-Going Projects

1. Palau Rural Water Systems Project \$10,000,000

Approximately \$10 million has been spent by the Palau Government on multiple village water systems and system improvements throughout the rural areas over the past 12 years in order to improve the quantity and quality of water for Palau’s rural population. Work on additional systems and existing system improvements will be pursued regularly, to be continued as Tier A projects below.

2. Belau National Museum Complex in Koror \$2,600,000

The Palau Government will construct the new Belau National Museum Complex in Koror as a modern museum and archives facility by the year 2004. A contract has been awarded as the Government has solicited and planned this project in conjunction with the 2004 Pacific Arts Festival to be held in Palau. The new facility will showcase a unique architectural style while housing and protecting Palau’s archaeological and cultural treasures.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

3. Malakal Natural Wastewater Treatment Park \$4,700,000

The new wastewater treatment plant for Koror will combine a natural, ponding/wetlands system interfaced with appropriate mechanical components from the old Malakal Sewage Treatment Plant. The capacity of the over-loaded facility is being increased from 1 mgd (million gallons per day) to 2 mgd to better serve the needs of Koror's economic development. The new facility will require less maintenance and should be a model for sewage treatment throughout the nation. Design and environmental permitting activities were completed in 2002. Full construction commenced in January 2003 and will be complete in early to mid 2004. The project is administered by the Government of Palau.

4. Ngara-Amayong Cultural Center \$2,500,000

The Ngara-Amayong Cultural Center will serve as a major focal point for community, regional and national functions. The Center is being built in close cooperation with Palau's traditional leadership. The Center will function as a performing arts and cultural exhibition location geared towards tourist development as well as a local, traditional meeting center. A contract for the design/build of the facility was awarded by the Palau Government in January 2003 and completion is scheduled for early to mid 2004 in conjunction with the Pacific Arts Festival.

5. Ngarchelong Road Paving Project – Compact Road Extension \$1,340,000

The 2.5 mile (4.3 km) Ngarchelong concrete road paving project will suffice as the north-most section of the Palau Compact Road Project, thereby helping complete the full Compact Road access throughout Babeldaob Island. Project construction commenced in early 2002 and full completion should be realized in early to mid 2003. The project is administered by the Government of Palau.

6. Palau National Capital Relocation Project \$37,500,000

The Palau Constitution mandates that Palau's capital should be moved to a centralized location in order to be more accessible to all Palauans. The state of Melekeok, on central Babeldaob Island, was selected by Palau's leadership in the early 1980's for this purpose. Melekeok state reciprocated by donating a portion of land to serve for the capital complex. Construction started on the project in 1999 with Phase I consisting of mass earthmoving and site preparation at roughly \$1.25 million. Phase II commenced in late 2000 with the full construction of the main buildings, costing about \$23.25 million. The Palau Government is currently awarding Additive Packages to Phase II. Packages "A", "B" and "D" for completion of the immediate complex, parking lots, frontage road, drainage structures and landscaping, were awarded in early 2003 for roughly \$9 million. Additional Packages for the full completion of the site and related



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

facilities should be awarded throughout 2003 in the amount of \$4 million. Full completion of the new National Capital is expected in late 2004.

7. Palau International Airport Terminal Project \$12,500,000

A Japanese Grant project for the construction of the new Palau International Airport Terminal Building Project was received in December 2001. The project includes the construction of a modern airport passenger terminal that will aid air travel in and out of Palau as well as provide a safe, secure and convenient facility for both tourists and transportation employees alike. The construction of the new facility, which commenced in January 2002, will be a major foundation of Palau's tourism industry. It is expected that the Government and private entities will occupy the new terminal building during the month of May 2003 and the facility will come into full use at that time.

8. Palau Compact Road Project \$113,000,000

The Palau Compact Road Project is mandated by the Compact of Free Association between the Governments of Palau and the United States. The 53-mile road will link the 10 states on Babeldaob Island with a modern, engineered and paved road, thereby providing a dependable land transportation link around Palau's largest island. It is felt that the Compact Road is critical to both the development of Palau's economy as well as a compliment to Palau's cultural preservation, as many citizens will be able to conveniently move back to their ancestral homes on Babeldaob. Design of the project by the U.S. commenced in 1995, construction started in 1999 and it is anticipated that construction will be completed during calendar year 2005. The project is managed by the U.S. Army Corps of Engineers.

9. Peleliu Primary Road Construction \$2,500,000

The Palau Government has addressed improvement of the island state of Peleliu's roads by undertaking the asphalt paving of roughly 3 miles of road with a Government asphalt plant and state work crews and contracting out roughly 1.5 miles of concrete road paving to private contractors. Work started on the Peleliu roads in late 2001 and should be completed in late 2003. The improvement of Peleliu's roads are a component of the basic infrastructure for Peleliu to become a major tourist destination in Palau as it is close to the top dive sites and primed for the development of resorts and hotels.

10. Aimeliik Solid Waste Management Facility Site Preparation \$1,900,000

The management of solid waste is one of the main challenges facing the Palau Government as it tries to strengthen the development of a modern economy and protect its fragile natural resources, which serve as the foundation of its tourism based economy. Toward this end the Government has made available funds for the preparation of the



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

nation's main solid waste management facility on Babeldaob Island. A suitable site has been identified and is being secured in Aimeliik state that meets basic environmental concerns. Work has been contracted for the preparation of a full Environmental Impact statement, including an environmental assessment and surveys for topography, archaeology, geo-technology and un-exploded ordnance. The design and construction of a permanent, all-weather access road is also included in the work. Once these tasks are complete, in late 2003/early 2004, the site will be ready for the eventual construction of the solid waste management facility, which is listed as an "A" Tier project below.

**Total Cost (On-Going Projects)      \$188,540,000**



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

## **B. Prioritized Projects (Tiers A, B, & C)**

Prioritized projects are listed below, within each Tier, in order of priority with a brief description and general cost estimate. Also, in parenthesis next to each project name is the project's sector. Project Sectors include: 'Public Utility' (Waste Management, Wastewater, and Water Supply), 'Transportation' (Sea Transportation, Road Transportation, and Air Transportation), 'Telecommunications', 'Tourism', 'Agriculture', 'Environmental Management', 'Social', 'Land Use', 'Urban Development', 'Banking' and 'States'.

### **TIER "A" PROJECTS**

### **Cost Estimate**

- A-1. Study on Waste Management in Palau \$500,000  
(PUBLIC UTILITY – Solid Waste Management)

Waste generation rates in Koror and Airai are estimated at 1 kg/person/ day (2.2 lbs.) Waste generation in Palau's other states is roughly one half this amount. It is anticipated that the rates in the outer states will increase, along with the development of the Palau Compact Road Project and especially after the capital is moved to Melekeok in 2004/2005. Therefore, it is important that a solid waste management program and plan be initiated and implemented to assist in the final planning of the solid waste management facility (planned for central Babeldaob), and the ultimate closure of all the existing open dump sites throughout Palau's states. This will require the establishment of transfer stations in all states. Also, involved is the planning for appropriate solid waste management strategies for Peleliu, Angaur, Kayangel, Hatohobei and Sonsorol.

- A-2. Development of Solid Waste Management Facility on Babeldaob \$12,000,000  
(PUBLIC UTILITY – Solid Waste Management)

Currently the Government has contracted services, for approximately \$1.6 million, for the site preparation of the eventual solid waste management facility in Aimeliik state on Babeldaob Island. This preparatory work includes: the topographic survey and securing of a land easement with the state for the site, development of the Environmental Impact statement (EIS), archaeological survey, un-exploded ordnance survey, Geotechnical survey, and the design and construction of an all-weather, permanent access road into the intended site. The \$10 million required for the full development of the facility will be used to construct the waste disposal cells, purchase heavy equipment and vehicles for operating the site, develop of the recycling portion of the facility, develop the leachate (wastewater) treatment for the facility, and other related items. It is



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

expected that the developed facility will have a 50-year design life to serve Palau's solid waste needs in an environmentally appropriate manner.

- A-3. Development of Solid Waste Transfer Station in Koror \$ 1,000,000  
(PUBLIC UTILITY - Solid Waste Management)

A key component of Palau's solid waste management strategy, along with the new main solid waste management facility to be built in Aimeliik, is the development of a solid waste "transfer station" in Koror. While the seat of government will move to Aimeliik in 2004/2005, Koror will remain the commercial and population center of Palau for the foreseeable future. Trash collection in Koror will continue as presently practiced and the collection vehicles will still require a facility to deposit their load. This will be the Koror transfer station, where solid waste is temporarily stored and/or segregated, awaiting transfer to the main facility in Melekeok. It is anticipated that this facility will have appropriate trailer-mobile containers that will be filled by community collection vehicles or by citizens that bring their own waste to the station. Once those containers are filled, they will be hauled to the main facility in Aimeliik. A ramp system for ease of filling the containers will be constructed and appropriate containers and haul vehicles will be purchased. Also, the station will be developed to aid in the recycling program of materials before they are transferred to Aimeliik.

- A-4. Metropolitan Road (Koror and Airai) Improvement \$19,000,000  
(TRANSPORTATION – Road Transportation)

Over 20 miles of paved road in Koror is in need of rehabilitation, ranging from slurry-seal type overlays to complete re-construction. These roads form the framework of not only transportation throughout Koror but also the backbone of Koror's economy, linking virtually all facets of the community, including businesses, government, recreation and housing. Development of tourism, including hotels and dive shops, rely on a safe and comfortable road system as part of serving their customers. The inclusion of road lane markers and signage, and the purchase of appropriate road maintenance vehicles, will also be part of this project as proper cleaning and sweeping of roads is directly related to useful life.

- A-5. Study on Improvement of Wastewater Systems in Palau \$500,000  
(PUBLIC UTILITY - Wastewater)

It has been clear for several years that the wastewater collection system in Koror is becoming overloaded. While the same situation has been true for the wastewater treatment plant, it is now being addressed by the "on-going" project



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

mentioned above. The more than 45 pump stations in the Koror collection system are all in need of repair and/or modernization. The miles of wastewater collection lines are often overcapacity thereby resulting in numerous overflows at manholes. In addition to Koror's needs, it is also appropriate to evaluate the near term and future wastewater requirements of all the other states of Palau. The soon to be complete Compact Road will make Babeldaob Island's states more accessible to both Palauans and tourists. Development in the several other large island states, especially tourism, will require up-graded wastewater management strategies in order to keep pace with this growth.

- A-6. Sanitation Improvement Project (Sanitary Core Unit Extension) \$2,000,000  
(PUBLIC UTILITY – Wastewater)

It is anticipated that the study of improvements for wastewater systems in Palau will recommend the continuation of "sanitary core units" in most of Palau's rural states and villages. This is due to the relatively remote locations of these villages. Such "units" encompass a septic tank and leech field and have been built in some areas under Palau's "Rural Sanitation Project." It is anticipated that this project will continue this work in the remaining states and villages on Babeldaob Island that have yet to receive such units (about half the states), as well as the large islands of Peleliu, Angaur, and Kayangel and the outer islands of Sonsorol and Hatohobei. Such septic systems should be appropriate for Palau's rural areas though the period of 2015-2020, when it is hoped that development will make it more feasible to link many of these villages' wastewater systems together for a higher level of treatment and discharge.

- A-7. Study for Water System Improvements in Palau \$300,000  
(PUBLIC UTILITY - Water Supply)

Koror has experienced a dramatic rate of growth over the last decade and it is expected that Koror will continue to lead Palau as its population and commercial center for many years to come. The adequate supply of safe drinking water is essential to the city's development, especially tourism. It is intended that this study will finalize the identification for new sources of water for Koror as well as identify improvements to be made in the existing system to more efficiently and dependably deliver water to all of Koror's interests. At the same time, all of Palau's other states are expected to experience similar growth, especially in the areas of tourism. All the other states' water systems need to be re-evaluated as to how they can better provide improved quality and an increased quantity of water over the next several decades and thereby serve as a positive addition to Palau's overall development rather than a negative impact.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- A-8. Repair of Water Supply Facilities and Expansion of Supply Area in Koror \$5,000,000  
(PUBLIC UTILITY – Water Supply)

Once the above water system improvements study is complete, the first priority will be to construct the repairs, modifications and improvements recommended by the study. It is anticipated that such work will include the development of another main supply source to the Koror system, which will entail the design and construction of water intake structures, pump station(s) and treatment facilities along with the installation of additional water pipelines, storage tank(s) and related appurtenances for water transmission and distribution.

- A-9. Improvement and Expansion of Wastewater Collection System in Koror \$5,000,000  
(PUBLIC UTILITY – Wastewater)

Once the above Study on Improvement of Wastewater Systems in Palau is complete, it will be appropriate to immediately commence this work on the improvement of the Koror collection system. Work will concentrate on the more than 45 pump stations as well as the several tens of thousands of feet of sewer lines throughout Koror. All pump stations require new, and sometimes larger, motors as well as replacement of old electrical controls. Overloaded sewer lines will either be replaced with larger lines or have parallel lines installed, as appropriate. Also, several low lying areas of Koror that have never been connected to the municipal system will have both sewer lines and pump stations installed.

- A-10. Palau International Airport Navigational Aid Facilities and Runway Pavement Improvement \$15,000,000  
(TRANSPORTATION – Air Transportation)

The existing runway at the Palau International Airport is 7,200 ft. (2,195m) long x 150 ft. (46m) wide. Major runway improvement took place in 1982 and in 1990 the runway was overlaid with a porous asphalt mixture to improve the surface traction of the runway for aircraft during Palau's frequent heavy rains. This surface is now beyond its planned design life and a new friction surface must be applied. It is possible that in the very near future, if this action is not taken, the airport may be subject to certain sanctions and conditions by aviation authorities in regard to airline safety. The project will involve scraping off the top surface layer (from 1990) and laying a new, possibly different surface. The project will also include the construction, including earthwork and other site preparation works, of the air navigation facilities, installation of an Instrument Landing System (ILS) and the inspection and replacement, as needed, of the existing



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

airfield lighting system, including: the runway end/threshold lights; runway threshold identification lights; taxiway edge lights; precision approach path indicator; aerodrom beacon; and illuminated wind cone.

- A-11. Marine Center Development \$5,300,000  
(TOURISM DEVELOPMENT – Product Development)

The project consists of a Marina Area Development including a pier, pedestrian deck, promenade, shops and restaurants, and a tourism facility development with information center, amusement center, and public park, all to be integrated with the existing Palau International Coral Reef Center (PICRC). Additional activities to be held at the Marine Center will include environmental education for divers, visitors and residents of Palau. This project is critical because currently there is no prominent core facility in Koror for tourism attraction. Tourism development is one of the key elements to promote economic activity in Palau. Combining a recreational and environmental awareness center in Koror will aid in protection of the marine environment (as divers and boat anchors damage coral), as well as provide a visitor and community center that will serve tourists and residents, and provide opportunity for local business development.

- A-12. Feasibility Study on Ocean Thermal Energy Conversion (OTEC) \$250,000  
(PUBLIC UTILITY – Power)

Even though the electric power system in Palau has been quite stable for several years, and is predicted to be so for the foreseeable future, the long-term goal for the economic security of the nation is to fully explore the development of renewable and sustainable energy sources. Current power generation in Palau is virtually fully dependent upon the burning of fossil fuels. Due to the expense of shipping fuel oil to Palau and the risk of world events threatening that supply, it is important for the nation to develop energy sources that are renewable and not threatened by outside events. Critical to such consideration are “clean” energy sources that do not pollute Palau’s sensitive tropical environment. Prime among these sources is Ocean Thermal Energy Conversion (OTEC). It is anticipated that OTEC, which is dependent on deep cold water sources, holds great promise for Palau, especially due to the location of the Palau Islands, adjacent to the 8,000 meter deep Palau Trench. This feasibility study will analyze the practicality of funding development of OTEC systems and provide data on eventual planning, design, cost and construction of the system.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- A-13. Feasibility Study on Renewable and Sustainable Energy Sources \$200,000  
(PUBLIC UTILITY – Power)

In addition to OTEC systems, and in line with the justification to study ‘clean’ and locally available energy sources, it is logical that an island nation such as Palau also examine the development of renewable and sustainable energy sources such as solar and wind energy. These are specifically appropriate for Palau’s tropical island location. While solar energy source development is readily conceivable for Palau’s hot, sunny climate, it is hoped that current technology will also promote the possibility of wind energy usage, even for Palau’s relatively light winds. Similar to the OTEC study, this feasibility study will also analyze the practicality of funding both large-scale and small-scale development of solar and wind energy sources to provide reliable power throughout Palau. The study will provide data on eventual planning, design, cost estimating and construction of such systems.

- A-14. Feasibility Study on Trans-Oceanic Fiber Optic Submarine Cable \$100,000  
Transmission System  
(TELECOMMUNICATIONS)

The Feasibility Study would analyze the practicality of funding a Trans-Oceanic Fiber Optic Submarine Cable Transmission System to connect Palau to major fiber optic nodes throughout the Asia-Pacific. The Study would also provide important data on the eventual planning, design, cost and construction of such a system. This telecommunication system would greatly enhance Palau’s capacity to become a major financial center for the region.

- A-15. Distance Learning and Tele-Health Satellite Telecommunication \$3,000,000  
Network  
(TELECOMMUNICATIONS)

The Republic of Palau, population 19,000, is a small and remote Pacific Island nation with limited resources. Palau is further isolated by its digital divide: its lack of full participation in 21st century telecommunications advances – particularly in the areas of telehealth, telemedicine, and distance education and learning - because of its currently limited and very expensive telecommunications infrastructure. Palau seeks to overcome this digital divide by improving its voice, televideo conferencing, Internet and Email access, and data communications capacities so that it can fully develop and participate in the local, regional, and international health and education networks. To this end, the project seeks to develop a system of integrated earth stations and communications systems which have the flexible capacity and robust power to not only interconnect its scattered



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

islands and remote villages but also connect in a cost effective manner with regional and international health and educational networks.

- A-16. Upgrade of Fiber Optic Network \$1,000,000  
(TELECOMMUNICATIONS)

The Fiber Optic Network needs to be upgraded to provide broadband capability, connectivity, and redundancy to support future growth that was not provided for in the original system installation. The upgrade of the fiber optic network is essential for economic growth, development, and equitable access throughout Palau.

- A-17. Peleliu State Fishing Port Infrastructure and Related \$3,300,000  
Improvement  
(FISHERY – Sea Transportation)

This is an ongoing small-scale fishery/community dock project that started in 1993 with a Japan Government grant. The facility is currently being utilized. However, additional dredging is required to deepen and widen the channel and navigational aid markers are needed to encourage near shore and deepwater commercial fishing and to support the development of tourism. The scope of work includes: construction of slipway and related equipment; construction of a roll-on/off ramp to facilitate loading and unloading of supply logistics; and installation of navigational markers to enhance navigational safety in the channel.

- A-18. Angaur State Port Facilities Improvement Project \$5,200,000  
(FISHERY – Sea Transportation)

This project is part of an ongoing Fishing Community Development Project for Angaur state. While small aircraft serves Angaur, the island's primary transportation link to Koror is by watercraft (small outboard motor boat and mid-sized fishing boats or cargo vessels). However, Angaur Harbor is one of the most dangerous and difficult harbor to navigate. During Storm Utor (July 2001) it received considerable damage and requires major repair to enhance navigational safety. Additionally, construction of a building adjacent to the existing facility is required to house fishing equipment and an office. The scope of work includes building construction, construction and reinforcement of the existing seawall, rock removal and dredging of the channel and the construction and repair of the fishing boat ramp and west seawall.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- A-19. Construction and Rehabilitation of Malakal Commercial Port \$10,000,000  
(TRANSPORTATION – Sea Transportation)

Virtually all cargo to Palau is transported by ships. Therefore, almost all economic development in Palau is dependent upon cargo received at the Malakal Port. Currently, the Port can handle roughly 2,700 containers of the 20 ft. size at a time, though this volume is already inadequate and cramped, and cannot provide for any future growth. The use of ocean shipping by containers will continue to rise worldwide. It is essential that Palau be able to expand its capabilities in this area in order to experience economic and capital growth. It is estimated that to improve the current situation and to cope with future increases in container cargo that a handling of an additional 2,500 sq. meters (27,000 sq. ft.) is needed. The anticipated scope of work includes expansion of the east berth, construction of new west berth and slipway for roll-on/ roll-off ships, warehouse and mechanic shop construction/demolition, customs and quarantine screening/inspection area, and pavement and drainage improvement. It is hoped that such a project can be undertaken in the 2003/2004 time frame and be completed by 2005/2006.

- A-20. Capital Funds for the Palau National Development Bank \$5,000,000  
(ECONOMIC DEVELOPMENT - Finance)

Adequately funding the Palau National Development Bank (PNDB) is essential to develop the private sector in prioritized areas such as tourism, agriculture, aquaculture, and small manufacturing. These areas of activity serve as appropriate opportunity windows for many of Palau's citizens to develop their own businesses and to establish a wide base of private sector strength that may flourish in both the domestic and potentially the export market.

- A-21. Palau National Capital Relocation Project Phase II \$3,600,000  
Additive Packages  
(ECONOMIC DEVELOPMENT – Public Administration)

The Palau National Capital Relocation Project has designed and constructed a new, permanent National Capital for the people of Palau in Melekeok state. This is a centralized location that will bring the seat of Palau's Government closer to Palau's citizens as well as contribute toward the development of the vast potential of Babeldaob, Palau's largest island. Roughly \$35 million has been spent to design the project, prepare the site and construct most of the facilities. In order to fully complete the project, several critical items must be accomplished before the site is ready for occupancy. These items, which will also benefit Melekeok state, include an emergency stand-by power generator for the capital; expansion of the main electric power supply lines to the capital complex (that will also serve Melekeok state); an up-grade of the Melekeok State Water System (for both the



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

capital and Melekeok state); and the construction of the “Connecting Access Roads” that will connect the “Compact Road” to the capital site (on the west side of the capital), and the capital site to the main villages of Melekeok State (on the east side of the capital).

- A-22. Ocean Thermal Energy Conversion Project (OTEC) \$80,000,000  
(PUBLIC UTILITY – Power)

The project will focus on the implementation of recommendations provided in the “Feasibility Study on Ocean Thermal Energy Conversion – OTEC,” (Tier “A” project above). The priority of this project may be raised depending upon the recommendations of the feasibility study. Through the study’s recommendations, vital information will be received on specific project requirements to be included in basic design tasks, as well as a refined cost estimate for full final design and construction. The development of an energy source such as OTEC, which will be clean, reliable, renewable and sustainable, would perhaps be the most significant step towards the long-term economic security and development of the nation. Eliminating the dependence on the importation and burning of fossil fuels will also enhance and secure future Palau’s environmental protection.

- A-23. Pacific Arts Festival Facility Improvements \$1,300,000  
(SOCIAL – Arts and Culture)

For approximately two weeks in July 2004, Palau will be the main focal point of the whole Pacific and Oceania region as we host the 9th Pacific Festival of Arts. This festival, which is held every four years in the Pacific, will include the participation of 26 Pacific nations. In order to properly host this prestigious event, in which it is expected that up to 5,000 persons, both official delegates and tourists will attend, it is necessary to improve and renovate facilities to be used during the Festival. Such facilities include the Central Festival Village and support venues including decentralized venues, first aid stations, public restrooms, information/help stations, communication stations, accommodation venues for participants and important logistical requirements for the Festival.

- A-24. Police Equipment Acquisition and Upgrade \$600,000  
(SOCIAL – Public Safety)

This project is aimed at replacing and upgrading the vehicles and equipment used by Palau’s primary law enforcement agency, the Bureau of Public Safety (the “Police”), in order to enhance their ability to respond to emergencies as well as the routine, general protection of the public safety. Priority equipment includes additional patrol vehicles, ambulances, law enforcement hardware, an upgraded communications network and video devices for patrolling and surveillance. With



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

the completion of the 53-mile Palau Compact Road in 2005, the burden of responsibility for the Police will increase several-fold. A major investment in Palau's police force equipment is necessary to protect the public. The project will also be used to perform certain limited remedial work to the corrections facility.

- A-25. Peleliu Concrete Road Construction Extension Project \$500,000  
(TRANSPORTATION – Road Transportation)

The project focus will be to design and construct an extension of roughly an additional 1¼ miles to the concrete road on Peleliu Island. The extension will begin at the end of the recently completed segment of concrete road through the village (near the cemetery), and end at the intersection close to the Peleliu Power Plant, toward the south. The road extension will complete the main road artery of the state and be a benefit to the local economy and tourist trade.

- A-26. Central Farmers Market and Cultural Performance Arts Center Expansion \$300,000  
(AGRICULTURE)

The project supplements the ongoing Cultural Performance Arts Center project aimed also at providing a central location for Palau's farmers to bring their products so that they can be sold to the general public, grocery stores, restaurants, live aboard dive boats, etc. This will allow all farmers to have access to a market place to sell their goods rather than search for and deliver to customers. The project will include, as an add on construction, an open style building to house stalls as well as certain equipment to address refrigeration, kitchen, water, fuel supply and waste disposal to the planned facility site or at a separate and more ideal site.

- A-27. State Capital Improvement/Economic Stimulus Projects \$4,000,000  
(ECONOMIC DEVELOPMENT – states)

Currently, state revenue sources are insufficient to finance needed infrastructure development. Due to the uniqueness of each state's development needs, funding is required at the state level to fund projects and programs identified in state development plans and initiatives. The goal of the National Government is to assist each state to establish a firm foundation of reliable basic infrastructure so that private development may confidently take root. These items include state roads, water and wastewater systems, electric power, telecommunications, docks and channels. While significant progress has been made in these areas, much still remains to be addressed.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- A-28. Compact Road Solar Street Lighting Project \$2,000,000  
(PUBLIC UTILITY – Power)

Solar Street Lighting for the Compact Road project aims to: 1) reduce Palau’s consumption of fossil fuel through the use of eco-friendly energy technology, and 2) alleviate the potential energy costs of lighting the Compact Road. The project would provide lighting to strategic areas along the entire length of the road. This includes lighting cross sections, straight-line areas, dangerous curves, and training on the maintenance of the solar streetlights. The project also includes the development of rest stations, watering stations and bathroom facilities, for residents and tourists.

- A-29. Compact Road Bicycle/Walking Path Project \$2,000,000  
(TRANSPORTATION – Road Transportation)

The Compact Road Bicycle/Walking Path would be a companion project to the Compact Road Solar Street Lighting Project. The lighting contemplated for the Compact Road would also light the bicycle paths. Bicycle Paths would provide an alternate to vehicle transportation and have a dynamic impact on the use of fossil fuel on the island. It would also spur economic develop to the island of Babeldaob in conjunction with the Compact Road.

- A-30. Development of Renewable and Sustainable Energy Sources Project \$10,000,000  
(PUBLIC UTILITY – Power)

Similar to OTEC development, this project will focus on the implementation of the recommendations stated in the “Feasibility Study on Renewable and Sustainable Energy Sources,” (Tier “A” project above). The priority of this project may also be raised depending upon the recommendations of the feasibility study and availability of securing specifically directed funds for such energy development. Information on project requirements outlined in the study will be implemented for the project to move through final design and actual construction. It is possible that the overall project may include “satellite” systems for small-scale solar and wind energy development throughout the many islands of Palau and/or the multiple, remote small villages and hamlets on Palau’s larger islands. Like OTEC development, solar and wind energy systems will offer clean, reliable, renewable and sustainable sources of power that will help eliminate Palau’s dependence on imported fossil fuels and most importantly, protect Palau’s unique tropical environment.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- A-31. National Commuter and Cargo Vessel (Inter-Island Water Transportation) \$600,000  
(TRANSPORTATION – Sea Transportation)

Although the Compact Road Project will ease transportation around Babeldaob Island, water borne traffic will still be required for certain purposes. In addition, sea transport will remain absolutely essential for the island states of Kayangel, Peleliu and Angaur, and even more so for the Southwest Island states of Sonsorol and Hatohobei. The lack of regularly scheduled transportation to these islands has led to migration of many of their residents to Koror, especially in the case of the Southwest Islands. The need for frequent and reliable transportation, to move people and goods, to all these islands is essential for the island population to maintain their residence. In the case of the Southwest Islands, habitation of the islands insures surveillance of the area's valuable fishing grounds.

- A-32. Northern Babeldaob Water Distribution System Expansion \$1,100,000  
(PUBLIC UTILITY – Water Supply)

The state of Ngarchelong, at Babeldaob Island's northern tip, is an important location for tourism development, as it contains potential for visitors to experience archaeological and cultural sites as well as take part in marine activities such as fishing and diving. Ngarchelong state is restricted in terms of water resources. Providing water for the state population during droughts is a challenge. Ngaraard state, adjacent to the south, has an abundance of fresh water. The project will design and construct necessary pipelines and pump stations to transmit sufficient quantities of water to Ngarchelong state for the development of a tourism based local economy.

- A-33. Purchase and Installation of Water Meters \$450,000  
(PUBLIC UTILITY – Water Supply)

Providing safe and dependable water to people is the most basic and possibly the most important infrastructure development for an emerging nation. The Palau National Government spends a significant amount of money on this factor by identifying and improving water sources as well as pumping, treating, storing and distributing water to the people. The cost of chemicals for treatment and electricity for pumping are often increased beyond necessary levels due to water leakage, wastage and misuse. In addition, an island nation like Palau has very restricted and limited water sources. Water supply in Palau is periodically severely affected by droughts, making this resource even more precious. One of the main proven elements toward water conservation is the development, use and maintenance of a comprehensive water metering system. Meters must be installed



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

and checked for performance so that customers can be charged fairly and accurately for what they use.

- A-34. Palau International Airport Safety and Security Equipment \$3,000,000  
(TRANSPORTATION – Air Transportation)

This project is aimed at strengthening the safety and security of the Palau International Airport through the acquisition of Federal Aviation Administration (FAA) certified aircraft rescue and fire fighting vehicles, appropriate explosive screening and cargo inspection systems, the replacement of the airport perimeter fencing, and the implementation of other safety and security enhancement measures, including training requirements.

- A-35. Fruit Fly Eradication \$1,250,000  
(AGRICULTURE)

The project is aimed at the eradication of the fruit fly in Palau. This action is necessary in order to enhance agricultural capacity and quality, both for domestic and potential export markets. The Oriental Fruit Fly first appeared in Palau in 1996 and it has spread to epidemic levels in guava, star fruit, banana, soursop and papaya. The issue of dealing with the fruit fly affects the security of Palau's food supply as well as any potential for export of products to other countries. Fly eradication will be addressed by the "male annihilation" method using the male attractant methyl eugenol combined with an insecticide in blocks of fiberboard. The economic potential for future export of fruit and vegetables, once the fly is proven eradicated, would pay for this program many times over.

- A-36. GIS Mapping Project \$300,000  
(LAND USE PLANNING)

New mapping capacity and equipment is required to update and improve Palau's current mapping system. Funding will permit the digital data conversion and processing of the 1992 Palau "Rapid Environmental Assessment" aerial photos (providing valuable base-line data), the acquisition of "IKONOS" or "QuickBird" satellite imagery and the taking of new supplemental photos to enhance national planning and assessment capacity.

**TOTAL ESTIMATED COST (TIER "A" PROJECTS) \$203,350,000**



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

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## **TIER “B” PROJECTS**

- B-1. Construction of Airai Segment to Connect to Compact Road  
(TRANSPORTATION – Road Transportation) \$3,800,000

The 2.5 mile (4.3 km) Airai Road Segment, from the airport to the Ngerikiil Bridge, will serve as the southeast completion section of the Palau Compact Road Project, thereby, along with the Ngarchelong Road Project (on-going), completing the full Compact “Trunk” Road throughout Babeldaob Island. This Airai segment of road will be the main, or shortest access from Koror to the new Palau National Capital being constructed in Melekeok State and due for completion in mid to late 2004. This Airai section also requires numerous culverts for small stream channeling and a certain amount of re-alignment in order to remain consistent with design speed, safety and other standards of the Compact Road.

- B-2. Phase Two of Master Plan for the States of Palau  
(LAND USE – Land Use Planning) \$500,000

Phase Two of the Master Plan for the states would focus on the development of land-use plans and guidelines for each state and the finalization of the Building Code for Palau. As the Compact Road is completed on Babeldaob Island and other basic infrastructure put in place on Peleliu, Angaur and Kayangel, all of which allow increased access to Palau’s land, it is critical that land-use schemes are correctly implemented for the protection of Palau’s natural resources as well as the logical commercial and social development of Palau’s economy.

- B-3. Public Schools Rehabilitation  
(SOCIAL - Education) \$1,450,000

While the consolidation of elementary schools throughout Palau is slated as a “Tier B” project below, before this consolidation comes about, the numerous elementary schools throughout Palau must be repaired, rehabilitated and improved. The existing physical condition of many of Palau’s schools is a detriment to educational practices and opportunity for students. Palau’s tropical environment is harsh on such structures. Similarly, the six high schools in Palau, both public and private and within and outside of Koror, must be improved as the number of students that Palau is sending to college, and hoping to send to college, is rising. Rehabilitation to all of Palau’s schools is a major, positive investment in Palau’s future.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- B-4. Improvement of Plant Nursery in Aimeliik, Babeldaob Island \$465,000  
(AGRICULTURE)

The Project is aimed at improving the facilities and function of the Nursery at the Bureau of Agriculture Station in Nekken, Aimeliik, Babeldaob Island. The operation of the Nursery will be made more functional in supplying various seedlings, providing convenient services to farmers and conducting experiments. The project will benefit food production of vegetables and fruits, promote the forest industry through timber tree seedlings and contribute to the production and export of flowers and ornamental plants. Income is possible by the sale of seedlings. Funding will be used for construction and equipment.

- B-5. 2005 South Pacific Mini-Games Facilities Improvements \$1,800,000  
(SOCIAL – Sports and Recreation)

Palau will host the 2005 South Pacific “Mini-Games” which are held every four years, between the regular South Pacific Games. These Mini-Games will actually be somewhat larger than the 1998 Micronesian Games hosted by Palau as many more nations, from all over the Pacific, will attend. It is expected that over 2,000 athletes will take part in the Mini-Games and well over 1,000 spectators will come to Palau to support their teams. For the 1998 Micronesian Games Palau spent approximately \$4.5 million in the preparation of roughly 10 sports facilities. Since that time these facilities have been heavily used by the public for local, regional and international competitions by Palau’s elite athletes as well as by the general community for public recreation. These facilities have benefited young and old alike and have directly added to the improvement in general health of the community by contributing to healthy lifestyles through exercise. These funds will therefore help improve Palau’s sports facilities for both the 2005 Mini-Games as well as for use by local athletes and the general public long after the Mini-Games have finished.

- B-6. Census of Population and Housing, and Fishery, Agriculture \$500,000  
and Household Income and Expenditure Surveys  
(ECONOMIC DEVELOPMENT)

In order for the National Government to more precisely plan and aid the economic development of the nation, with the limited financial resources available, it is essential that as great an amount of data as possible, about the needs of its citizens, be gathered and analyzed. Critical to this analysis is the Census of Population, and Fishery, Agriculture Survey and Household Income and Expenditure Survey (HIES). The surveys will produce relevant statistics for the nation’s planners concerning the basic conditions of the people of Palau. By understanding accurately what resources Palauan families have available to them,



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

and how they are expending those resources, the Government can be more confident in allocating the nation's resources to best serve its citizens.

- B-7. Development of Solid Waste Transfer Stations in all 10 States on Babeldaob Island \$3,000,000  
(PUBLIC UTILITY – Solid Waste Management)

The 10 states of Palau on Babeldaob Island each have one or more un-regulated and un-segregated garbage dumps. There are roughly 16 of these dumps on Babeldaob. These are not solid waste management facilities. These inappropriate dumpsites are a threat to the public health and both the terrestrial and marine environment, as well as an unsightly scar on the otherwise beautiful tropical landscape. While closure of these dumps is necessary for protecting the people and environment of Palau, it is first necessary to develop a transfer station in each state so that people's waste, which will continue to be generated, may be properly transported to the new solid waste management facility to be developed in Aimeliik. It is anticipated that one transfer station will be developed per state, where all state residents will bring their waste. Similar to, though smaller than the Koror Transfer Station, each state station will have facilities for segregation of waste and re-cycling. Special vehicles from the main Aimeliik facility will pick up waste at the state stations.

- B-8. Rural Water Systems Project \$2,000,000  
(PUBLIC UTILITY – Water Supply)

The "Tier A" project for the study of improvement of water systems in Palau will provide comprehensive direction to the improvements required for the roughly 18 water systems serving the various villages outside of Koror. Most of Palau's rural water systems were either built or improved during the 1980's and 1990's. It is anticipated that during the next 5 to 10 years all of the rural systems will require up-upgrades to pumping systems as well as waterline extensions to serve growing populations. The National Government's goal to develop the economies of the rural areas must be based on the improvement of this basic infrastructure in these communities.

- B-9. Compact Road Maintenance Program Startup Equipment and Supplies \$1,500,000  
(TRANSPORTATION – Road Transportation)

Within two years, certain segments of the Compact Road will be completed; and therefore, operation and maintenance responsibilities of these segments will be turned over to National Government. An effective and efficient operation and maintenance program will be required in order to ensure safe movement of



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

motorists and goods as well as to protect and preserve the high capital investment in the years to come. An effective and efficient operation and maintenance program will require at least three maintenance facilities/yards, with one each to be located on the East Route, West Route and the North Route. Each facility must have maintenance building with field offices, spare parts and supply storage room, a space for a machine shop and a sufficient area for all weather repairs and storage of machines, automobiles and equipment. Each facility must have a fenced protected yard for outdoor storage of equipment and materials that are necessary for routine and periodic maintenance of the road. The maintenance facility will be equipped with road maintenance equipment such as vacuum street sweepers, vacuum/pump trucks, boom-mounted roadside mowers, various asphalt repair tools and equipment and other rolling stock assets that are normally used for routine and periodic maintenance of the road.

- B-10. Closure of Existing Dump in Koror \$2,000,000  
(PUBLIC UTILITY – Solid Waste Management)

The unregulated garbage dump in Koror, at M-Dock, has been in operation for over 30 years. Its location, immediately adjacent to the water, as well as located in central Koror, is totally inappropriate for a solid waste facility. It is categorized as a “dump” because it has never been run in a manner consistent with a proper “solid waste management facility.” Therefore, it is critical that the M-Dock Dump be properly closed and the land reasonably rehabilitated as soon as possible. Closure is dependent on the opening of the New Solid Waste Management Facility in Aimeliik (project A-2), and related to the opening of the Koror Transfer Station (project A-3), anticipated to be developed at the M-Dock Dump site. The M-Dock Dump is also located next to a hotel/restaurant and the Palau International Coral Reef Research Center, lending to its need for closure. It is anticipated that most of the mountain of garbage at the Dump will be sent off island rather than moved to the new Aimeliik facility. This will require that the garbage be either recycled or consolidated for shipping. It is expected that this project, which should commence immediately after opening of the Aimeliik facility, will take 18 to 24 months to fully complete.

- B-11. Cross-Island Roads – Babeldaob – Kokusai to Compact Road at Shimizu \$5,000,000  
(TRANSPORTATION – Road Transportation)

One of two critical “cross-island” sections for the overall Babeldaob Road System is the segment from Kokusai in Aimeliik State to Shimizu in Ngchesar State. This segment connects the “Compact Road” from the west (Kokusai) to the “Compact Road” in the east (Shimizu) and has been a natural transportation link for many years. The mileage of the Compact Road, as stated in the Compact of



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

Free Association, was only 53 miles, which did not allow the inclusion of quite a few critical road segments on Babeldaob. This specific cross-island segment cuts across roughly the middle of Babeldaob Island and is a convenient and natural link for traffic between the west and east sides of the island. This road section is also important for making more of Babeldaob Island accessible for both economic development and social development as Palauans move back to their ancestral lands.

- B-12. Cross-Island Roads – Babeldaob – Ngardmau to Compact Road at Melekeok \$6,000,000  
(TRANSPORTATION – Road Transportation)

The second of the critical “cross-island” sections for the Babeldaob Road System is the segment from Ngardmau State to the Compact Road in Melekeok State. This segment connects the “Compact Road” from the northwest, in Ngardmau to the east “Compact Road” in Melekeok. This section has also been a natural transportation link for many years, though is un-improved and rough. Similar to the Kokusai to Shimizu section, it was not able to be included in the 53-mile Compact Road. This Segment is critical due to the Palau Capital Relocation Project in which the National Capital will be moved to Melekeok State. This important road section will make Melekeok and the new capital a main “travel-hub” of Palau and contribute towards the social and economic development of central Babeldaob Island.

- B-13. Improvement of Connecting Roads to Compact Road (47 miles) \$20,000,000  
(TRANSPORTATION - Road Transportation)

The Palau Compact Road, being built under the administration of the U.S. Army Corps of Engineers, is a 53-mile (88 km), “ring-road” around Babeldaob Island. The Compact Road will undoubtedly be the single most critical factor favoring Palau’s economic development. But the Compact Road is purposely not routed through almost all of Palau’s villages so as to avoid high-speed traffic through these small population areas. In addition, even though there is a northern-crossing route of the Compact Road (Ngardmau to Ngkeklaou village in Ngaraard), there is not a more critical, central Babeldaob cross-island road, which would link the east coast of Babeldaob to the west coast. This central portion of Babeldaob is a prime agricultural development area for which road development is essential. Also, with the location of the new National Capital in Melekeok, it is important that west coast access to the capital be provided with additional road links. Almost all of the 55 miles (92 km) of connecting roads called for would lie on existing coral roads, thereby eliminating the requirement for pioneering new roads. This project would mainly be concerned with firming the road base, improving drainage and cross-culverts, and applying permanent paving.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- B-14. Development of Solid Waste Management Facility & Purchase of Vehicle in Peleliu \$2,000,000  
(PUBLIC UTILITY – Solid Waste Management)

For many years Peleliu has been one of Palau’s prime tourism areas. It has attractions for visitors interested in diving, WWII relics and a natural, tropical environment. Tourism growth in Peleliu is a critical component of Palau’s developing economy. Solid waste will accumulate more rapidly with tourism development and the construction of modern hotels and restaurants. It is expected that waste generation will increase almost ten-fold by the year 2020, from .34 tons per day to over 3 tons per day. Already Peleliu has a less than desired situation with an un-segregated “dump” that is an eyesore and un-suitable for environmental protection. Since Peleliu is an island roughly 30 miles from Koror it is not feasible or recommended for to transfer waste from the island. It is necessary for Peleliu to develop a final and appropriate solid waste management facility along with necessary collection and haulage vehicles to serve the site.

- B-15. Development of New Final Dump & Purchase Vehicles in Angaur and Kayangel \$2,000,000  
(PUBLIC UTILITY - Solid Waste Management)

Similar to the island state of Peleliu, Angaur and Kayangel are two major inhabited island states of Palau for which a solution to appropriated solid waste management must be found. Transporting waste to Koror, or the new waste management facility to be developed in Aimeliik, is not reasonable. Both Angaur and Kayangel states have unique tropical ecosystems. Environmental tourism has such tremendous potential for these states that it is of national interest. The enhancement of this industry and protection of the public health, is dependent upon environmental protection, of which proper solid waste management is the foundation. Therefore, the appropriate management of solid waste through a developed facility, with adequate equipment and vehicles, is a major priority that will contribute to the public benefit as well as the tourism industry.

- B-16. Construction of a Central Babeldaob High School \$2,250,000  
(SOCIAL - Education)

A new high school will be planned and constructed in central Babeldaob Island to provide continuing education for the large number of students that will graduate from Babeldaob’s elementary schools. Currently students from Babeldaob must leave their families and move to Koror to attend high school. Students usually move in with relatives that are sometimes not equipped to handle the addition of teens into their households. These relocated students have left the important



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

influence of their immediate families, often causing social and developmental difficulties. It is intended that most students would become day students, though a dorm will be available for a certain number of students, to live on campus. Funding will be used to design and construct classrooms and labs, a cafeteria, an auditorium/gymnasium, administrative facilities, recreational facilities, parking lots and purchase additional buses.

- B-17. Consolidation Plan of Elementary Schools on Babeldaob Island \$500,000  
(SOCIAL - Education)

The project will consolidate 10 Babeldaob Elementary Schools into four schools in the states of Aimeliik, Melekeok, Ngaremlengui and Ngarchelong. The current number of elementary schools produces excessive duplication of effort and additional expenses. Funding will be utilized to construct additional classrooms as well as renovate existing buildings at the four sites. Funding will also be used to purchase additional school buses to transport students. It is felt that the consolidation of elementary schools will ultimately benefit the level and quality of education that can be offered to primary students as teachers and students alike will be able to work in an improved, concentrated environment as population shifts out of Koror and back to Babeldaob Island.

- B-18. Trans-Oceanic Fiber Optic Submarine Cable Transmission System \$47,000,000  
(TELECOMMUNICATIONS)

This project will focus on the implementation of recommendations provided in the "Trans-Oceanic Fiber Optic Submarine Cable Transmission System Feasibility Study" (Tier "A" project above). The priority for this project may be raised depending on the recommendations of the feasibility study. Through the study's recommendations, vital information will be received on specific project requirements to be included in the design as well as a refined cost estimate for both design and construction. The submarine fiber optic cable system is envisioned as critically important if Palau is to be competitive in its efforts to become the major regional financial center for the North Pacific.

- B-19. Expansion of New Earth Station Site \$200,000  
(TELECOMMUNICATIONS)

This expansion of the second (Airai) Earth Station site will provide increased capacity for international communications in the event the primary Meyuns Earth Station suffers an outage. The ROP, through PNCC, is self-funding the platform, housing for electronics and the first antenna. However, funding is required for the additional capacity.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- B-20. New Prison Facility on Babeldaob \$2,500,000  
(SOCIAL - Public Safety)

Due to rapid growth over the last two decades and due to the limited amount of available land, Koror has become a crowded and congested town. Space is at a premium. Even though the capital is due to move to Melekeok State in 2004/2005, Koror will remain the commercial center of Palau for many years. The Koror Jail is the nation's only prison facility. It is crowded, inadequate and deteriorated. The land upon which it sits, in downtown Koror, has much more appropriate use. It is recommended that a modern prison be constructed on Babeldaob Island where there is sufficient land to build such a facility. Such a prison could include agricultural labor for prisoners (in part, to grow their own food), and space for other activities appropriate for a correctional and rehabilitation facility, such as education and occupational training.

- B-21. Giant Clam Ocean Based Nursery Development Project \$100,000  
(FISHERY – Fishery)

This is a national program to develop a viable grassroots export industry in all 16 states of the Republic of Palau. The goal of the Giant Clam Nursery Project is to seed at least 1,000,000 clam seeds per state to benefit the coastal communities through the sale of giant clam products to aquarium and seafood markets in Europe, Japan, Okinawa, Hong Kong, and the Republic of China (Taiwan). Secondly, through natural propagation of seedling, it will support natural restoration of the giant clam population in the Republic of Palau.

**TOTAL ESTIMATED COST (TIER “B” PROJECTS) \$104,565,000**



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

## **TIER “C” PROJECTS**

- C-1. South West Islands Channel/Dock Design and Construction \$6,000,000  
(TRANSPORTATION – Sea Transportation)

The two Southwest Island states of Sonsorol and Hatohobei, each made up of several islands, are critical outposts guarding an enormous area of Palau’s fertile fishing grounds. Only the island of Helen’s Reef (an atoll) in Hatohobei State has safe anchorage for ships. It is very important from the standpoint of safety, as well as the transport of developmental equipment and materials, that these islands have a channel and dock so that ships may safely visit the islands to load and unload. Even though each state is made up of several islands, due to cost, it is proposed that the main island of each state, Sonsorol Island and Tobi Island, receive constructed channels and docks at this time. The project will allow a channel through the reef and a dock to be built that will make possible the safe unloading of people and materials (which is currently very difficult and dangerous, being performed outside the reef), as well as the safe loading of items from the island to be bound for Koror. Development of these islands, while having great potential though stunted for many years, will now be possible as well as the protection of the public welfare, as people can be moved safely. One of the problems encountered in protecting Palau’s southwestern fishing grounds has been the difficulty in keeping people as residents in the Southwest Island states. This project will help solve this problem.

- C-2. Outer States Public Safety Sub-Stations \$900,000  
(SOCIAL - Public Safety)

With the completion of the Palau Compact Road, anticipated for 2005, it is expected that the population and economic development of Babeldaob Island will expand dramatically as many residents of Koror move back to ancestral lands. Tourism development is also expected to become a major contributor to growth on the Babeldaob as well as on the island states of Peleliu, Angaur and Kayangel. The need for protecting public safety also grows with economic development. Currently Palau’s Police Force is headquartered in Koror, and due to transportation logistics, records most of its performance in Koror. With the transfer of population outside of Koror the presence and performance of the Police must also transfer. Therefore, in order to service the public need, it will be necessary to construct Police sub-stations throughout the outer states of Palau. It is anticipated that initially such facilities will be constructed in areas to serve several states, such as one each for northern, eastern, western and southern Babeldaob and one each for Peleliu, Angaur and Kayangel.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- C-3. Development of Eco-Tourism Hiking and Kayaking Opportunities in Ngardok Conservation Area and Ngeremeduu Bay Conservation Area, Babeldaob Island \$600,000  
(ENVIRONMENTAL MANAGEMENT)

The project will provide an impetus for the development of eco-tourism within Babeldaob Island's two conservation areas, which require a form of sustainable development in order to provide operating funds for the areas. The project will develop environmentally sound and appropriate access roads to the sites, construct trails throughout the conservation areas and also prepare the rivers and streams for easier access and use by kayaks. It is expected that private investment, regulated by the states, that actually develops the eco-tourism activities will offer various opportunities for employment of Palauans within each state.

- C-4. Improvement of Access Road to Ngardmau Waterfall, Babeldaob Island \$300,000  
(TOURISM DEVELOPMENT)

The project is aimed at improvements of roads for vehicle access to the near vicinity of Ngardmau Waterfall as well as improvements to the foot trail that delivers tourists and hikers directly to the falls. An important factor in this development is environmental protection for this natural area as well as appropriate safety and convenience for tourists. The Ngardmau Waterfall is a unique area in Palau that will be part of the foundation of eco-tourism in Palau. Funding will be expended on construction as well as maintenance equipment.

- C-5. Ngarchelong Tourism Base Development Plan, Babeldaob Island \$1,500,000  
(TOURISM DEVELOPMENT)

The northern tip of Babeldaob is ripe for tourism development due to its proximity to excellent fishing locations and potential new dive sites as well as the exploration of archaeological sites on land. Upon completion of the Compact Road, the area will be easily accessible by vehicle. The project will mainly be funded by private sources for hotels, restaurants, and guide services, but the Government will aid this development through the improvement of the two docks in Ngarchelong. This site will also offer greater accessibility to Kayangel State and make possible the establishment of a significant amount of local employment to run and support the tourism industry.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- C-6. Kayangel Island Resort Development Plan \$1,500,000  
(TOURISM DEVELOPMENT)

As in Ngarchelong, tourism in Kayangel is underdeveloped, with potential to develop fishing and diving sites as well as a small intimate resort. While the majority of such development will fall upon private investors, the Government will assist in providing certain essentials for the state's development, such as a centralized water system and wastewater treatment facility. A Japanese Grant Project is already improving both dock and channel infrastructure. The National Government is designing and will construct a centralized Kayangel water system. Together with the additional basic infrastructure of a wastewater system, under this project, Kayangel should be poised for environmentally wise development which should increase tourism, and thereby employment and opportunity.

- C-7. Improvement of Peleliu Airport \$500,000  
(TRANSPORTATION - Air Transportation)

The island state of Peleliu already receives a significant percentage of Palau's tourism activity. Due to World War II relics, a small tropical island environment and proximity to dive sites, Peleliu is an extremely popular destination. It is anticipated that as part of Palau's economic growth, further development of Peleliu's tourism industry will occur, focusing on the construction of hotels, dive shops and restaurants to serve this clientele. In order to facilitate Peleliu's development, air transport must be improved. Peleliu is roughly a one-hour trip by speedboat from Koror, but only 15 minutes by air. Improvements will be made to Peleliu's airport and will include minor modifications to the existing runway and the construction of a modest airfield terminal building for the use of air travelers. This work will benefit both residents and tourists alike in travel to and from Peleliu Island.

- C-8. Navigation Markers \$500,000  
(TRANSPORTATION - Sea Transportation)

Being an island nation, especially a nation with a dozen inhabited islands and hundreds of un-inhabited, recreational islands, Palau has developed a reliance on sea transportation. This mode of transport includes personal, small boats for recreation and maintenance of livelihood as residents travel and work between the islands, as well as the frequent and necessary presence of large ocean going vessels that bring materials, food and equipment of all types to Palau. The installation, repair, modification and maintenance of navigational markers affect both small, outboard engine vessels as well as major ocean transport of tens of thousands of tons. The proper installation of navigational markers is both for the public safety, as small boat traffic is properly routed, and the protection of the



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

environment, as large vessels may be kept in sea-lanes, there-by avoiding grounding with the possibility of damage to the coral reefs and oil spills.

- C-9. Radio Towers – Marine Safety \$5,000,000  
(TELECOMMUNICATIONS)

Due to the fact that Palau has a tremendous number of boats for personal use, for recreation or the maintenance of livelihood, and also for commercial use such as fishing and tourist dive operations, it is necessary to establish a radio communications safety net whereby all marine operations can connect. Even the inclusion of large ocean going vessels in this communications network will benefit the public safety of boat operators that may need to report situations of distress. The project would include the construction of radio towers and radio base stations throughout Palau dedicated to the monitoring of marine safety needs, as well as for the direction of possible rescue activities.

- C-10. Closure and Cleanup of all State Dumps Outside of Koror \$5,000,000  
(PUBLIC UTILITY - Solid Waste Management)

Closely related to project B-7. “Development of Solid Waste Transfer Stations in all 10 states on Babeldaob Island,” the closure and clean-up of the un-regulated garbage dumps in all ten states on Babeldaob Island is a public health and environmental protection issue. It is anticipated that one transfer station will be developed per state, though the closure plans will be necessary for roughly 16 state/village dumps existing on the island. These dumps sites, and their contents, threaten the terrestrial and marine environment and are an unsightly scar on the landscape. In most cases the dumps are located in convenient proximity to a village. This make the closure of each site that much more critical. It is anticipated that the closure plans will be integrated with a recycling program so that most of the contents of the state dumps can be transferred off-island rather than filling space at the new solid waste management facility to be developed in Aimeliik State on Babeldaob. Also, as part of the closure, each dump will be capped in an appropriate manner and monitoring devices installed in the hope that the land at each site may be turned into useful real estate or used for other state purposes.

- C-11. Formulation of Zoning System \$500,000  
(LAND USE PLANNING)

Land use patterns in Koror State and other states are quite different. While currently about 75% of Palau’s population resides in Koror, it is expected that by the year 2005, Koror’s population will decrease with the completion of the Palau Compact Road, the Palau National Capital relocation to Babeldaob and the job



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

generation of tourism development on Babeldaob, Kayangel and Peleliu. It is therefore necessary to appropriately devise a land use plan to accommodate the movement of people and businesses out of Koror to the other states of Palau. Current infrastructure development in the outer states is limited and in order to insure that outer state development is planned and takes place in a manner that most benefits the people of Palau, the formulation of a Zoning System will be required to assist the states' development.

C-12. Protected Area Network (PAN) Conservation Trust Fund \$10,000,000  
(ENVIRONMENTAL MANAGEMENT)

The Conservation Trust Fund (CTF) is necessary to establish a financing mechanism in support of the establishment of a Protected Area Network (PAN). The CTF is intended to provide annual funding for conservation programs for the protection of the PAN. It will also serve to provide for the regular receipt of new funding resources toward the PAN. The CTF will also serve to assist the states in identifying, designating and maintaining areas of biodiversity and unique habitats, particularly the marine ecosystems.

C-13. Construction of Reef Road in Koror (3.25 miles) \$10,000,000  
(TRANSPORTATION – Road Transportation)

Koror is Palau's capital, population and commercial center. Even though the national capital will be relocated to Melekeok on Babeldaob in 2004/2005, Koror will remain Palau's business hub for many years to come. Due mainly to island geography, only one main road passes fully throughout central Koror. This restriction causes extreme traffic congestion and negatively effects an otherwise fertile economic growth environment. The "reef road" will actually entail the construction of a road close to the waterside of the mangrove that surrounds Koror on the north. It will be important that the road be constructed in such a manner as to allow water passage both in and out of the mangrove so as to protect this valuable ecosystem. It is expected that the road, which will essentially be a thoroughway north of, and parallel to Koror's main road, will be constructed from the western part of Koror Island, near the Malakal Bridge, through to T-Dock and on to the Ren-Rak area near the new Palau-Japan Friendship Bridge (Koror-Babeldaob Bridge). The road will also connect into the "back" side, on the north, of Koror's various hamlets, thereby providing a multiple loop system for traffic to move through the town. Also, the road will provide an easier route for commercial traffic that can avoid downtown Koror.



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

---

- C-14. Natural Resource Exploration and Product Licensing and Agreement \$1,500,000  
(ECONOMIC DEVELOPMENT – Regulatory Framework)

This project would establish a comprehensive and systematic process for the development of an appropriate legal, fiscal, regulatory and contractual framework for natural resource exploitation including petroleum exploration. Anticipated work and services includes qualified consultancy services to provide an independent assessment of specific natural resource potential including: the review and update of existing of relevant data; assessment of likely risks and how they may be managed; a discussion paper on potential social impacts; and the preparation of appropriate legal, fiscal, regulatory and contractual frameworks.

- C-15. Palau National Library \$1,000,000  
(SOCIAL – Education)

Currently Palau has several small libraries associated with its schools, including the Palau Community College. There is no central library that serves as a repository for Palau's national documents, nor to serve as a central research center. The public is not well served by this situation. As Palau further develops in the near future, greater awareness and knowledge of the world by its citizens will become more critical. Education must not stop once Palauans graduate from high school or college, but must continue throughout life. The construction of a National Library will serve as an archival institute as well as a center for learning to compliment the school system. Also, Palauans returning from education overseas will be accustomed to, and demand, the benefits that such a facility provides.

- C-16. Outer states Post Office Sub-Stations \$1,000,000  
(SOCIAL – Postal Service)

Currently, the only Post Office, which is run by the National Government, is located in Koror. There is no mail delivery system in Palau and all postal users must travel to the Koror Post Office for mail pick-up or other postal services. In addition, the Koror Post Office is limited in size and sometimes overwhelmed with materials. With the development of the Compact Road and the anticipated spreading of population from Koror outwards to the rural areas, it is necessary that postal sub-stations be developed in areas outside of Koror to better serve Palau's citizens.

It is anticipated that sub-stations will be developed in three or four logical hub-sites on Babeldaob Island as well as on the islands of Peleliu, Angaur and Kayangel. The more convenient access to mail delivery and other postal services



**Republic of Palau  
Public Sector Investment Program (PSIP)  
2003-2007**

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in a critical infrastructure component that the Government must provide to its citizens.

**TOTAL ESTIMATED COST (TIER "C" PROJECTS)      \$45,800,000**



**Republic of Palau  
Public Sector Investment Program (PSIP)  
2003-2007**

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**C. Total cost of All Project Included in the “PSIP”**

			<u>Approximate Value</u>
<b>Project Totals:</b>	A-Tier:	30 Projects	\$203,750,000
	B-Tier:	20 Projects	\$104,565,000
	C-Tier:	16 Projects	<u>\$45,800,000</u>
	Prioritized Projects Sub-total (Tier A, B, & C)	66 Projects	\$354,115,000
	Major On-Going:	10 Projects	<u>\$188,540,000</u>
	Total:	76 Projects	<u><b>\$542,655,000</b></u>



**Republic of Palau**  
**Public Sector Investment Program (PSIP)**  
**2003-2007**

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## **APPENDICES**

*Appendix 1. Schedule of Programs by Tier*

*Appendix 2. Schedule of Programs by Sector*