**CONVENTION ON THE PROHIBITION OF THE USE, STOCKPILING, PRODUCTION AND TRANSFER OF ANTI-PERSONNEL MINES AND ON THEIR DESTRUCTION**

**Reporting Formats for Article 7**

<table>
<thead>
<tr>
<th>STATE [PARTY]:</th>
<th>THE REPUBLIC OF PALAU</th>
</tr>
</thead>
<tbody>
<tr>
<td>POINT OF CONTACT:</td>
<td>Primary Contact:</td>
</tr>
</tbody>
</table>
| | Victor M Yano  
Minister of State, Ministry of State |
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The Capitol  
Republic of Palau 96940  
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Email: mekisang@gmail.com |

(ONLY FOR THE PURPOSES OF CLARIFICATION)
Form A  National implementation measures

Article 7.1 "Each State Party shall report to the Secretary-General ... on:
   a) The national implementation measures referred to in Article 9."

Remark: In accordance with Article 9, "Each State Party shall take all appropriate legal, administrative and other
measures, including the imposition of penal sanctions, to prevent and suppress any activity prohibited to a State Party
under this Convention undertaken by persons or on territory under its jurisdiction or control".

State [Party]: Republic of Palau reporting for time period from Jan 2010 to Dec 2010

<table>
<thead>
<tr>
<th>Measures</th>
<th>Republic of Palau has ratified and deposited its ratification to the Convention.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supplementary information (e.g., effective date of implementation &amp; text of legislation attached).</td>
</tr>
</tbody>
</table>
Form B  Stockpiled anti-personnel mines

Article 7.1 "Each State Party shall report to the Secretary-General ... on:
  b) The total of all stockpiled anti-personnel mines owned or possessed by it, or under its jurisdiction or control, to include a breakdown of the type, quantity and, if possible, lot numbers of each type of anti-personnel mine stockpiled."

State [Party]: Republic of Palau reporting for time period from Jan 2010 to Dec 2010

1. Total of stockpiled anti-personnel mines

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Lot # (if possible)</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palau does not own, possess or control anti-personnel land mines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Previously unknown stockpiles of anti-personnel mines discovered after the deadlines have passed. *(Action #15 of Nairobi Action Plan)*

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Lot # (if possible)</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Pursuant to the decision of the 8MSP, as contained in paragraph 29 of the Final Report of the Meeting, document APLC/MSP.8/2007/6.
**Form C  Location of mined areas**

Article 7.1 "Each State Party shall report to the Secretary-General ... on:

c) To the extent possible, the location of all mined areas that contain, or are suspected to contain, anti-personnel mines under its jurisdiction or control, to include as much detail as possible regarding the type and quantity of each type of anti-personnel mine in each mined area and when they were emplaced."

---

**State [Party]:** REPUBLIC OF PALAU reporting for time period from **Jan 2010** to **Dec 2010**

1. Areas that contain mines*

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Quantity</th>
<th>Date of emplacement</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peleliu – Umubrogol Mountains, Death Valley</td>
<td>Type 93 Anti Personnel - Japanese</td>
<td>7</td>
<td>September 1944</td>
<td>Republic of Palau was part of a military build-up and ground for one of the fieriest battle in the Pacific, thus assessment report of anti-personnel mine and various UXO infestations throughout the island. A small team of demining has assisted the Republic to initiate a small assessment team, but due to lack of funding and technical capability assessment and clearance work is slowly being implemented.</td>
</tr>
<tr>
<td>Peleliu – Umubrogol Mountains, Hill 180</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* If necessary, a separate table for each mined area may be provided
<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Quantity</th>
<th>Date of emplacement</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Umubrogol Mountains, Hill 180</strong></td>
<td>Yardstick Anti Vehicle Landmine - Japanese</td>
<td>5</td>
<td>September 1944</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type 99 – Armour Penetrating - Japanese</td>
<td>7</td>
<td>September 1944</td>
<td></td>
</tr>
<tr>
<td><strong>Peleliu – Amber Beach</strong></td>
<td>Type JE Sea Mine - Japanese</td>
<td>1</td>
<td>September 1944</td>
<td></td>
</tr>
<tr>
<td><strong>Airai State</strong></td>
<td>Type JE Sea Mine - Japanese</td>
<td>1</td>
<td>1944</td>
<td></td>
</tr>
<tr>
<td><strong>Angaur</strong></td>
<td>Type JB Spherical Sea Mine - Japanese</td>
<td>1</td>
<td>September 1944</td>
<td></td>
</tr>
</tbody>
</table>

2. Areas suspected to contain mines*

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Quantity</th>
<th>Date of emplacement</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Umubrogol Mountains (Bloody Nose Ridge)</strong></td>
<td>Type 93 Anti Personnel - Japanese</td>
<td>Unknown</td>
<td>September 1944</td>
<td>Landmines have been found stored in the complex cave and tunnel systems of the former battlefield. A total of 608 caves exist – operations have only taken place in 29 caves to date.</td>
</tr>
</tbody>
</table>
Form D  APMs retained or transferred

Article 7.1  "Each State Party shall report to the Secretary-General ... on:

d) The types, quantities and, if possible, lot numbers of all anti-personnel mines retained or transferred for the
development of and training in mine detection, mine clearance or mine destruction techniques, or transferred for
the purpose of destruction, as well as the institutions authorized by a State Party to retain or transfer anti-
personnel mines, in accordance with Article 3"

State [Party]: REPUBLIC OF PALAU  reporting for time period from  Jan 2010  to  Dec 2010

1a. **Compulsory**: Retained for development of and training in *(Article 3, para.1)*

<table>
<thead>
<tr>
<th>Institution authorized by State Party</th>
<th>Type</th>
<th>Quantity</th>
<th>Lot # (if possible)</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1b. **Voluntary information** *(Action #54 of Nairobi Action Plan)*

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Activity / Project</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td>“Information on the plans requiring the retention of mines for the development of and training in mine detection, mine clearance, or mine destruction techniques and report on the actual use of retained mines and the results of such use”</td>
</tr>
</tbody>
</table>

NOTE: Each State Party should provide information on plans and future activities if and when appropriate and reserves the right to modify it at any time
Form D (continued)

2. **Compulsory**: Transferred for development of and training in *(Article 3, para.1)*

<table>
<thead>
<tr>
<th>Institution authorized by State Party</th>
<th>Type</th>
<th>Quantity</th>
<th>Lot # (if possible)</th>
<th>Supplementary information: e.g. transferred from, transferred to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. **Compulsory**: Transferred for the purpose of destruction *(Article 3, para.2)*

<table>
<thead>
<tr>
<th>Institution authorized by State Party</th>
<th>Type</th>
<th>Quantity</th>
<th>Lot # (if possible)</th>
<th>Supplementary information: e.g. transferred from, transferred to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Form E  Status of programs for conversion or de-commissioning of APM production facilities

Article 7.1  "Each State Party shall report to the Secretary-General ... on:
  e) The status of programs for the conversion or de-commissioning of anti-personnel mine production facilities."

State [Party]: Republic of Palau  reporting for time period from Jan 2010 to Dec 2010

<table>
<thead>
<tr>
<th>Indicate if to &quot;convert&quot; or &quot;decommission&quot;</th>
<th>Status (indicate if &quot;in process&quot; or &quot;completed&quot;)</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palau has never produced anti-personnel land mines, thus does not have such facilities.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Form F  Status of programs for destruction of APMs**

Article 7.1  "Each State Party shall report to the Secretary-General ... on:

f) The status of programs for the destruction of anti-personnel mines in accordance with Articles 4 and 5, including details of the methods which will be used in destruction, the location of all destruction sites and the applicable safety and environmental standards to be observed."

<table>
<thead>
<tr>
<th>State [Party]: Republic of Palau</th>
<th>reporting for time period from Jan 2010 to Dec 2010</th>
</tr>
</thead>
</table>

1. Status of programs for destruction of stockpiled APMs (Article 4)

<table>
<thead>
<tr>
<th>Description of the status of programs including:</th>
<th>Details of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of destruction sites – Aimeliik State</td>
<td></td>
</tr>
<tr>
<td>Controlled Explosive Destruction by British NGO Cleared Ground Demining</td>
<td>Methods</td>
</tr>
<tr>
<td>IMAS and Cleared Ground Standard Operating Procedures</td>
<td>Applicable safety standards</td>
</tr>
<tr>
<td>Demolition Range is permitted by both the Palau Environmental Quality Protection Bureau and the Palau Historical Preservation Office</td>
<td>Applicable environmental standards</td>
</tr>
</tbody>
</table>

2. Status of programs for destruction of APMs in mined areas (Article 5)

<table>
<thead>
<tr>
<th>Description of the status of programs including: All AP Landmines are destroyed as soon as they are located, made safe for transportation to the demolitions range.</th>
<th>Details of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of destruction sites – Telkahl Island, Peleliu State</td>
<td></td>
</tr>
<tr>
<td>Controlled Explosive Destruction by British NGO Cleared Ground Demining</td>
<td>Methods</td>
</tr>
<tr>
<td>IMAS and Cleared Ground Standard Operating Procedures</td>
<td>Applicable safety standards</td>
</tr>
<tr>
<td>Demolition Range is permitted by both the Palau Environmental Quality Protection Bureau and the Palau Historical Preservation Office</td>
<td>Applicable environmental standards</td>
</tr>
</tbody>
</table>
Form G  APMs destroyed after entry into force

Article 7.1  "Each State Party shall report to the Secretary-General ... on:
  g) The types and quantities of all anti-personnel mines destroyed after the entry into force of this Convention for
     that State Party, to include a breakdown of the quantity of each type of anti-personnel mine destroyed, in
     accordance with Articles 4 and 5, respectively, along with, if possible, the lot numbers of each type anti-
     personnel mine in the case of destruction in accordance with Article 4"

State [Party]: Republic of Palau  reporting for time period from  Jan 2010  to  Dec 2010

1. Destruction of stockpiled APMs (Article 4)

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Lot # (if possible)</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Destruction of APMs in mined areas (Article 5)

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Form G (continued)

3. Previously unknown stockpiles of anti-personnel mines discovered and destroyed after the deadlines have passed. *(Action #15 of Nairobi Action Plan)*

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Lot # (if possible)</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Pursuant to the decision of the 8MSP, as contained in paragraph 29 of the Final Report of the Meeting, document APLC/MSP.8/2007/6.
Form H  Technical characteristics of each type produced/owned or possessed

Article 7.1 "Each State Party shall report to the Secretary-General ... on:
   h) The technical characteristics of each type of anti-personnel mine produced, to the extent known, and those
currently owned or possessed by a State Party, giving, where reasonably possible, such categories of
information as may facilitate identification and clearance of anti-personnel mines; at a minimum, this
information shall include the dimensions, fusing, explosive content, metallic content, colour photographs and
other information which may facilitate mine clearance"

State [Party]: Republic of Palau reporting for time period from Jan 2010 to Dec 2010

1. Technical characteristics of each APM-type produced

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions</th>
<th>Fusing</th>
<th>Explosive content</th>
<th>Metallic content</th>
<th>Colour photo attached</th>
<th>Supplementary information to facilitate mine clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Technical characteristics of each APM-type currently owned or possessed

<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions</th>
<th>Fusing</th>
<th>Explosive content</th>
<th>Metallic content</th>
<th>Colour photo attached</th>
<th>Supplementary information to facilitate mine clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Measures to provide warning to the population

Article 7.1 "Each State Party shall report to the Secretary-General ... on:

i) The measures taken to provide an immediate and effective warning to the population in relation to all areas identified under paragraph 2 of Article 5."

Remark: In accordance with Article 5, para.2: "Each State Party shall make every effort to identify all areas under its jurisdiction or control in which anti-personnel mines are known or suspected to be emplaced and shall ensure as soon as possible that all anti-personnel mines in mined areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means, to ensure the effective exclusion of civilians, until all anti-personnel mines contained therein have been destroyed. The marking shall at least be to the standards set out in the Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, as amended on 3 May 1996, annexed to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects".

State [Party]: **REPUBLIC OF PALAU** reporting for time period from **Jan 2010** to **Dec 2010**

[Narrative:] No known or suspected AP Landmines emplacements exist, although as mentioned above the AP Landmines are sometimes encountered in the cave systems and are remains of Japanese stockpiles from World War 2.

Mine and ERW warning signs have been erected at both public entry ports to Peleliu island. National Risk Awareness Media Campaign. Regular Mine / ERW risk awareness sessions have been conducted in the southern State of Peleliu during this reporting period. Sessions have been held for the Peleliu Elementary School, Community Leaders and at Community Meetings in the State Bai (Meeting House). Risk Awareness sessions will be extended in 2011 to the State of Koror and Airai, where the majority of the population of Palau reside.
Form J  Other relevant matters

Remark: States Parties may use this form to report voluntarily on other relevant matters, including matters pertaining to compliance and implementation not covered by the formal reporting requirements contained in Article 7. States Parties are encouraged to use this form to report on activities undertaken with respect to Article 6, and in particular to report on assistance provided for the care and rehabilitation, and social and economic reintegration, of mine victims.

State [Party]: Republic of Palau reporting for time period from Jan 2011 to Dec 2011

[Narrative / reference to other reports:]

- Palau has implemented its annual mine clearance programs and currently seeking additional funding to continue clearance and public awareness, thus Palau’s Anti-Personnel Land Mine Annual Report dates from Jan 2011 to Dec 2011;

- Palau has continued its effort toward universalization of both the Anti-Personnel Mine Ban and Cluster Munitions Conventions in the Pacific Region. As a result, Palau recently took part of a Pacific Island Forum unexploded ordnance scoping mission meant to assess and recommend to Pacific Leaders, during the annual Pacific Leaders meeting, the status of unexploded war remnants and its effect to security, environment, development and economy. The scoping mission resulted strong support and recommendation for funding and technical support;

- Attached herewith are:
  “Pacific Island Forum Secretariat: UXO Scoping Mission for Palau, 2011”, which entails the mine action clearance Palau has initiated;
  “Pacific Island Forum Secretariat: Summary Report Unexploded Ordnance Findings, 2011”, which is the Pacific Island Forum Secretariat’s summary report of the unexploded ordinance scoping mission in the Pacific Region;

- In addition to the abovementioned, Palau continues its work toward promoting the Convention in the Pacific Region through a Pacific UXO Workshop, thus in planning and fundraising stages with the Convention; and

- Palau has been fortunate to have not experienced any recorded mine victims.
Pacific Islands Forum Secretariat

UXO Scoping Mission Report

Palau

2011
Palau

Background

Palau is located in the north Pacific Ocean some 2,000 kilometres (1,242.4 miles) north of Australia. It is estimated there are more than 200 islands in the chain running from northwest to southwest, although only 8 are inhabited. The population of Palau is approximately 21,000, of whom 70% are native Palauans, who are of mixed Melanesian, Micronesian, and Austronesian descent. Palau is known to many as the location for the bloodiest battles of World War II.1

The Peleliu Island was the scene of one of the Pacific’s bloodiest battles when U.S. Marines made an amphibious assault on the beaches of Peleliu in 1944 to liberate the island from Japanese forces. Peleliu was heavily fortified with massive concrete bunkers and over 300 man-made and reinforced natural caves used to shelter the Japanese forces during massive naval bombardments prior to the assault. Remnants of Japanese headquarters buildings, incredible cave systems, gun emplacements, tanks, planes and weapons can still be seen today. Peleliu is a memorial site for both WWII US and Japanese troops. Many Marines died on the beaches and in the caves of Peleliu. Many of the military installations of the era, such as the airstrip, are still intact, and shipwrecks from the battle remain visible underwater just off the coast.

Aim

The aim of this report was to establish the following:

- What impact UXO have on the communities and the environment?
- What capacity does the government have to deal with UXO?
- What challenges and constrains face by agencies dealing with UXO?

1. Assessing the Impact of UXO

1.1 UXO a Development Issue?

As evident from the number of interviews conducted and reports submitted by both government, Cleared Ground Mining (CGD) and the scoping mission by Pacific Islands Forum Secretariat (PIFS) confirmed that the UXO and other remnants from WWII have become a development issue.

1 http://www.nationsencyclopedia.com
for the Republic of Palau. This legacy from WWII is still posing a human security threat to local communities and visitors to the country. It is deteriorating with age and becoming more unstable. It hinders access to areas for traditional food gathering, and areas which could be developed for tourism. It is frequently encountered during the construction of homes and businesses.

1.2 Estimated quantity of UXO

Information obtained from US Military records for Palau shows that 2,200 tonnes of ordnance was dropped by air and another 600 tonnes were fired from US Navy vessels. As Palau was one of Japan’s major supply bases for the Pacific, and also the base for its naval fleet following defeat in Chuuk, it is also assumed that Japanese Forces returned fire of equal magnitude. Hence given that military failure rates range from 20-30%, at 25% there could be up to 1,400 tonnes remaining. It has been estimated that the island of Peleliu could take from 3-5 years to clear. This estimated time would increase should it be necessary to also undertake extensive sub-surface clearance.

The above figures are consistent with CDG’s current experience in assisting the Government of Palau with demining activities. After five months of clearance activities by a small local team, 5,864 items of ordnance weighing some 6.5 tonnes have been located, removed and destroyed. Ordnance ranges from hand grenades to 1000lb aircraft bombs, and includes land mines, cluster munitions, armed trip wire devices, improvised explosive devises etc.

Photograph 1: shows the current stage of UXO found in nearby areas

Photo taken by AJM unexploded bomb, Peleliu, Palau
1.3 Location of UXO in habited and inhabited areas

Japanese bases and bunker positions were located extensively across the islands of Palau, and clearance activities have to date removed UXO from ten of Palau’s sixteen States. However Peleliu and Angaur islands - where historic land battles took place and 13,000 people lost their lives - are the site of the majority of UXO which have been found to date. Major air battles also took place over Palau’s biggest island of Babeldaob, and its most populated island of Koror.

Data provided by CGD shows clearance activities where ordnance has been found.

**Table 1: indicates land use categories and quantity of UXO found in each area.**

Each % is calculated on what is found in its category out from the total number of items 9,106

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>15.7</td>
</tr>
<tr>
<td>Public Beaches</td>
<td>15.2</td>
</tr>
<tr>
<td>Historic / Tourist Site</td>
<td>34.3</td>
</tr>
<tr>
<td>Infra-structure</td>
<td>18.1</td>
</tr>
<tr>
<td>Residential</td>
<td>16.7</td>
</tr>
</tbody>
</table>

NB 48% US origin, 52% Japanese origin

US records also show that munitions stores were dumped at sea by US forces as the battle moved from Palau, and today much of these UXO ordnances still wash up on Peleliu’s beaches after storms. Clearance activities to date have concentrated on land, but ordnance has also been removed from some of Palau’s most famous dive sites due to safety concerns faced by this important tourism sector. In addition, 1109 items of ordnance were removed from the popular diver lunch spots of South Dock on Peleliu, and 178 from Two Dogs lunch spot.

Whilst Babeldaob is not extensively inhabited, the capital has been relocated to Meleok and it is planned that the population will begin to also move to these areas, and with such urbanization it is highly expected that more UXO will be discovered.

1.4 UXO Impact on Communities and the Environment

A door-to-door survey on the island of Peleliu discovered that 26% of households had some form of UXO contamination. Subsistence food gathering such as for crabs and bats, and taro cropping, takes
the communities of Peleliu and Angaur islands into all areas of the islands, and hence direct regular contact with UXO.

Construction development regularly unearths UXO. For example, a 1000 lb US bomb was found in the centre of Koror in close proximity to the town water storage and a fuel station. Eighty-four items were also unearthed in a church in Peleliu. The 1000lb bomb was in mint condition, with highly sensitive impact fuses on both ends. If such a bomb initiated, the result could have been disastrous for a large number of people.

Another negative impact of UXO is that its presence encourages certain members of the public to continue the illegal practice of ‘explosive fishing’. Although illegal, this practice unfortunately continues today and is highly dangerous, as well as being highly destructive for Palau’s reefs and marine life on which the majority of Palau’s industries rely on. Injuries and loss of life have resulted as a result of tampering with these deathly items.

Tourism forms 60% of Palau’s GDP, yet some of its dive sites are contaminated and the majority of Peleliu’s key battle areas are not safe for tourist traffic. One tourist accident alone could have a devastating effect on this important revenue source for the country. Tourism could be developed greatly should UXO be removed from major battle sites, helping also combat high unemployment rates in the Southern islands. For example, it is noted that there is an 82% unemployment rate on Peleliu.

However, the positive impact of providing historical artifacts should not be ignored, and hence much of the UXO located is not destroyed, but made free of explosive, and restored for the museum or for locations on tourist trails through battle sites.

After 66 years in the elements, much of the ordnance is deteriorating and leaking into the ground and sea, with isolated incidents of self-initiation, including phosphorous grenades. Japanese ordnance contained picric acid, and many cases of UXO ordnance demonstrate yellow leakage.

There have been a number of reports from dive companies of rashes appearing on their guides and instructors. Investigations of certain dive sites with known UXO show the presence of picric acid, and limited coral and fish life was noted in these areas. Unfortunately, the Environmental Quality Protection Board (EQPB) of Palau does not have the facilities to test for chemical contaminants.

Cancer is one of Palau’s largest killers and there are concerns that ordnance leaking into the water table or food chain could be contributing to this. While cancer death sample sizes currently restrict full scale analysis, the National Hospital is gathering significant amounts of data on the issue.
2.0  Assessing current activities on UXO

2.1  Agencies dealing with UXO and related issues

At a strategic level, the President’s Office, with the assistance of the Ministry of State, deals with the issue of UXO. The Ministry of State has been a driver in adopting the Ottawa and Oslo Treaties, as well as encouraging other Pacific states to do likewise. The Ministry of State has also been responsible for inviting NGO assessment of the problem and implementing clearance activities. The Office of the President and the Ministry of State have also been active in raising awareness of Palau’s problem with the international community and encouraging funding support for activities.

On a day to day level the Bureau of Public Works has been assisting the Ministry of State in coordinating public reports of UXO. The Governors of all sixteen States are also aware of the clearance program, and their State Rangers are responsible for reporting all public reports of UXO directly to clearance NGO CGD, or to the Bureau of Public Works.

*Photograph 2: local staff in Peleliu who are involved with UXO clearance*

*Photo provided by CGD- Palau.*
2.2 Programs and Initiatives on UXO

In May 2009 the Republic of Palau through the Ministry of State instigated an assessment of its UXO problem by British registered non-profit NGO CGD, and on receiving the findings invited CGD to mobilize international donor resources so that they could implement clearance activities. Operations commenced in September 2009, prioritizing high impact clearance, in this case where communities and visitors are most at risk. Hence, clearance to date has been focusing on UXO contamination in households and fields, around public infrastructure, and in the vicinity of tourist monuments and sites. All activities are conducted in accordance with International Mine Action Standards (IMAS) and CGD’s SOPs based on international best practice. This includes full time paramedic on site and accident insurance for all workers. CGD’s activities have also been awarded the relevant permits from the EQPB and the Historic Preservation Office (HPO) which recognize CGD to conduct clearance.

Other related activities have included: household UXO surveys on Peleliu and Angaur; risk awareness sessions to communities and schools; survey and underwater clearance of dive and State boat dock; and current clearance of a tourist trail through Peleliu’s main battle field site Bloody Nose Ridge. As well CGD have an Emergency Callout Facility to deal with immediate high risk threats to the population and visitors nationwide. The reporting procedure is covered in more detail in the following sections. Callouts have included removal of a 1000lb bomb from the centre of densely populated Koror, and removal of ordnance from popular dive sites.

A very positive aspect of Palau’s UXO clearance program is that a sustainable local capacity mechanism is being developed.

2.3 Process involved when dealing with UXO

CGD and its local team are actively locating UXO through reports, historical research, surveys etc. Governors of all States have all been advised by memo from the Ministry of State to report any known locations of UXO to the Ministry. All State Governors are to be soon given standardized reporting forms for use by their State Officers such as Rangers and Police when the public report UXO. These reports are then passed either directly to CGD or the Bureau of Public Works. On receiving such a report the CGD Team visits to make an assessment. Render safe procedures (RSPs) are then conducted by the international explosive ordnance devise expert to make the UXO safe for transport, after which it is taken to secure storage areas on Peleliu Island.

Demolitions of all collected ordnance are undertaken at regular intervals of approximately 2 to 3 months at the remote demolitions facility on Peleliu Island. To date no in-situ demolitions have been necessary. No ordnance is dumped at sea, as this practice does not provide a permanent solution, and is hazardous to marine and reef life. CGD can provide PIFS with more technical details on all processes should this be of interest.
Detailed records, including GPS locations, are prepared for every piece of ordnance located, utilizing internationally standardized IMAS formats created by the UN.

2.4 Public Awareness

Risk awareness sessions are conducted on Peleliu through community meetings, and regular sessions at the schools. Signs depicting UXO have been erected at the points of entry to Peleliu Island warning of the dangers which UXO pose, and advising tourists not to touch them. Leaflets are also given out when tourists purchase their land permits, with a Japanese version now translated and awaiting printing. Awareness has also been conducted with local and Japanese tourist guides to ensure their visitors do not touch items discovered.

Palau is hoping that CGD can raise additional funds to extend their awareness campaign nationally to the public, through media such as television, radio and newspapers. At present national newspapers are highly supportive of the clearance work being undertaken, and provide regular updates on activities.

2.5 Assistance from Government and Development Partners

Palau assists clearance activities through the provision of paramedics for the clearance team, rangers’ boats to analyze underwater UXO situations etc. However, it is necessary for Palau to seek financial assistance from other countries to enable clearance activities to continue. To date the US, UK and New Zealand have assisted to fund clearance. CDG have at their own cost provided the use of capital equipment such as vehicles, detection gear, tools, personal protective equipment (PPE) etc.

Palau hopes that its clearance team will be able to assist other Pacific countries with their UXO problems, with removal and demolition activities, as well longer term train-the-trainer programs.

Given the high costs of explosives and the strictly regulated environment in which to internationally transport and store explosives, CGD arranged with the US Navy to provide the explosives required for demolitions. Hence every 2-3 months the US Navy very kindly transport sufficient explosives to allow demolitions by CGD to take place.

2.6 What are the challenges or constraints?

The prime challenge for Palau is to raise sufficient funding to continue its UXO clearance efforts. The Pacific is a forgotten battleground, with current conflicts such as Afghanistan and Sudan taking donor focus and the greater share of international clearance budgets. Non-regional donors defer to those donors active in the region. It would seem that some international donors fear that funding such clearance will reopen large scale war compensation claims across the Pacific. Also some donors feel that the low number of accidents to the population does not merit intervention, although this in effect reflects Palau’s successful awareness campaigns.
The above funding challenge also prevents survey and clearance activities from expanding to all states of Palau, although emergency callout capabilities have been built into current projects. Clearance activities have focused on high impact areas of contamination with serious risk to communities and visitors, but contamination is known to be widespread nationally.

Another challenge is that many individuals assume the UXO is safe as so much time has passed, whereas the opposite is true, with ordnance becoming more unstable with age. However such dangerous attitudes are being countered by the regular awareness sessions.

Peleliu’s battle was famous for the first defensive use of natural and man-made cave systems by the Japanese forces. Hence much ordnance remains in these cave systems, which at the same time are major tourist attractions. Palau believes it is alone in being a country where UXO clearance is taking place in caves, with unique methodology based on standard Battle Area Clearance (BAC) being utilized.

With sufficient funding and resource assistance to be provided to the initiatives currently undertaken in Palau, more clearance activities will be conducted and hence making land use safe for socio-development purposes.

**Conclusion and Recommendation**

Given limited attention UXO have compare to other development issues, the impact it has on the communities and the environment is significant. It is important to acknowledge that this issue has been long since the end of WWII in 1945.

The Government of Palau has taken the right approach to address the UXO issue. With the assistance provided by the GCD, good progress has been made. Further, it is recommended that:

1. Financial and other resources requirement should be provided to Palau;
2. Government agencies and development partners to support the current activities undertaken;
3. GCD should be given the support to continue to build the local capacity within communities;
4. Ensure future international development assistance provided to Palau should include or reflect UXO into this programmes;
5. Encourage partner organisation to provide support to the Government of Palau to manage the challenges it faced in dealing with UXO;
6. Encourage government agencies and stakeholders to support activities focused on building local capacity (pro-active approach) rather than relying on reactive approach which have been applied in the past.
7. Encourage UXO record keeping and data management to be maintained on activities conducted and shares among interested users.
Pacific Islands Forum Secretariat

Summary Report

Unexploded Ordnance Findings

2011
“Police in Henderson (near the airport) on February 19th, 2011 have arrested 5 people (3 men and 2 women) digging and collecting WW2 ordinances in a restricted area called Hell Point. Currently RAMSI uses the area for live target practice. The officer in charge of the explosive disposal unit expressed concern at the dangerous and irresponsible activities of individual who ignore police warning to collect unexploded bombs that can be found in that area. He indicated that police will continue to patrol the area so as to minimize the risk of harm to members of the public that maybe caused by unexploded ordinances”

Source: Solomon Islands Star.
Title: Challengers of addressing WWII Unexploded Ordnance in affected Forum Member Countries

1. Introduction

Unexploded ordnance (UXO) was raised at the 2010 Forum Regional Security Committee (FRSC) meeting held in Suva, Fiji in June 2010. In the course of discussions about the Secretariat’s work on small arms and light weapons, Members highlighted the issues and challenges faced when dealing with UXO. The Forum Secretariat was then requested to explore the issue of UXO in the region and to assist Forum members in addressing this longstanding matter.

In addition to a questionnaire disseminated to all Forum Member countries seeking their input, the Secretariat conducted scoping missions to Palau, Kiribati, Papua New Guinea and Solomon Islands. Interviews were conducted with representatives of national government agencies, state government representatives, countries diplomatic representatives, civil society organizations and local communities.

The scoping missions provided baseline information and preliminary findings to the challenges and issues faced when addressing UXO in the region. One crucial challenge that was readily noted was the lack of available data or records on UXO activities. The limited data available did not provide an accurate account of a number of UXO related issues such as: the types of items left behind, the number of the deaths and injuries caused, activities previously undertaken, environmental impact assessment reports and operational costs that were involved in conducting previous UXO clearance exercises.

Initial findings into UXO for each country are provided in separate reports and annexed “A” to the summary report. Principal findings on common emerging issues and problems found from this scoping exercise are summarized in the findings section of this report.

Developing out from the results of this scoping study, is a proposed draft regional UXO strategy. The proposed UXO strategy will seek to provide direction for members who may want to develop national Plans of Action to address their UXO issues. A number of recommendations and proposed draft UXO Framework are provided as part of the study.

2. Background

Problem

The impacts and associated risks posed by UXO are significant. Forum Island Countries have experienced a number of UXO incidents causing death, injuries and negative environmental impacts. Countries affected have neither the technical expertise nor the resources to undertake
comprehensive UXO clearance. While assistance has been available, it has been provided on an ad hoc and intermittent basis.

**Purpose**

The purpose of the research report was to explore the issue of WWII UXO in Forum Island Countries and develop an appropriate response to assist affected Members. The three main objectives were to:

- investigate the extent to which UXO affected FIC’s,
- assess how UXO was affecting local communities; and
- recommend appropriate actions for a regional approach to assist member countries.

**Definitions**

Munitions is the general term that can be used to describe ordnance. Munitions are devices equipped with explosives or other material for use in military operations which can represent a hazard to people and to any future use of the land where they are located. The Protocol on Explosive Remnants of War defined the following as:

*Explosive ordnance* means conventional munitions containing explosives, with the exception of mines, booby traps and other devices as defined in Protocol II on Explosive Remnants of war as amended on 03rd May 1996.

*Unexploded ordnance* means explosive ordnance that has been primed, fused, armed or otherwise prepared for use in armed conflict. It may have been fired, dropped, launched or projected and should have exploded but failed to do so.

*Abandoned explosive ordnance* means explosive ordnance that has not been used during an armed conflict that has been left behind or dumped by a party to an armed conflict, and which is no longer under control of the party that left it or dumped it. Abandoned explosive ordnance may or may not have been primed, fused, armed or otherwise prepared for use.

*Explosive remnants of war* mean unexploded ordnance and abandoned explosive ordnance.

**3. Methodology**

To obtain information for this study, two primary sources were adopted:

- Research Questionnaire seeking input from all Forum Island Countries; and
- Interviews conducted with various officials and individuals in the selected countries visited.

The research questionnaire was divided into three main categories:
1. Assessing the extent of Unexploded Ordnance in Forum Member Countries;
2. Assessing the extent of current activities undertaken by Forum Member countries to deal with UXO;
3. Considering options to improve approaches when dealing with UXO.

Category one was designed to confirm the presence of UXO, the estimated quantity found and the general location commonly found (land, sea, habited areas).

Category two sought to assess agencies responsible for dealing with UXO, programs and initiatives on UXO, awareness raising activities previously undertaken, development assistance provided and challenges/constraints faced by affected Forum Island Countries.

Category three was designed to seek Member input on UXO activities and the impediments they would anticipate when implementing initiatives.

The research questionnaires were sent to 13 FIC’s and only two responses were received. Samoa indicated that UXO was not an issue while Palau provided a full report into their UXO problem.

Visits were made to Kiribati, Palau, PNG and Solomon Islands. The research comprised of interviews with government officials from ministries of police, foreign affairs, public works and infrastructure, environment & conservations, health, marine & fisheries, members of the diplomatic community, and representatives of development partners, civil society organizations and local communities.

While other Forum Island Countries have identified UXO issues, scoping visits could not be made to all affected countries as this was not feasible given the time and budgetary constraints.

4. Summary of Findings

Assessing how UXO was having impact in affected countries

Initial assessment conducted in the four countries provided some indications about UXO having some form of impact on local communities. For example, some of the impacts which have been described include:

a. Restrictions to land use for farming, food gathering and other socio-economic activities;

b. Use of UXO substances for dynamite fishing contributing to the destruction of parts of the marine environment.

c. Use of UXO parts such as bullets with abandoned or modified weapons to commit crimes. For example, during the civil conflicts in Bougainville and Solomon Islands, WWII materials were believed to have been used by militants.

d. Selling of UXO and other war remnants scrap metal to metal buyers. The search for UXO is increasing as more people are aware they can earn money from WWII remnants. For example, in Solomon Islands, it was found that the local market price for a one litre coke
bottle containing bomb powder is been sold at 1,500 – 3,000 Solomon Dollars. 500ML content is sold for 500 Solomon Dollars.

e. Fatalities to local community. It was evident during the assessments that a number of deaths and injuries have occurred in all countries visited.

f. Negative environmental consequences – while there is a strongly held belief that UXO are contaminating the environment, scientific tests need to be conducted to support such claims.

g. Added burden to available public Health resources – the possible contamination from UXO substance leaking out into the environment in addition to the injuries and deaths caused put additional strain on local public health resources.

h. Law & Order issues - certain countries visited have criminalized the use and possession of WWII remnants in domestic legislation due to the widespread and dangerous practices surrounding the illegal use and sale of UXO.

Common Challenges faced by Forum Member countries to deal with UXO;

Lack of a Sustainable Approach

Members identified that assistance on UXO removal had been provided by develop partners and some international bodies. According to interviews, most of the assistance had been provided by Australian Defence Force and United States of America personnel. It was noted that the assistance provided had been intermittent and reactive with no long term sustainable programs or procedures to support UXO clearance activities.

Lack of Capacity

Some countries have established explosive ordnance units within their police and military who take a leading role when it comes to managing UXO clearances. It was identified however that personnel in these units mostly lack the capacity in terms of resources and technical skills. For example, in Kiribati, the trained police personnel originally trained have all left the Force while in Solomon Islands, the responsible unit lacks adequate resource support with an urgent need of proper equipment.

Financial support

The lack of sufficient national financial support for UXO activities was identified as a major constraint and most assistance provided was through the support from development partners.
Risk Awareness

Another issue highlighted was the lack of risk awareness programmes on UXO. There was a general lack of coordination as to which Government agency was responsible for taking the lead in raising public awareness on the risks associated with UXO. Where agencies were clearly identified, these agencies claimed they lacked the resources to undertake effective and sustained public awareness campaigns. It was also noted that most government agencies interviewed did not have specific contingency plans for UXO emergency incidents.

Lack of Priority

UXO issues are not often considered a priority when the focus is mainly on development. Forum Island Countries with limited resources predominantly seek to focus available resources in advancing the development agenda which leads to a significant lack of emphasis on UXO due to resource constraints.

Lack of Data Management

Record keeping and information management on UXO activities is limited. The standard procedures set out by International Mine Action Standards on data management are not reflected. Records about where UXO are located, the types of items found, clearance activities and previous assistance provided in the past have not been maintained. This has resulted in difficulties in accessing UXO information. While basic records have been kept by some countries (Palau and Solomon Islands) there is significant room for improvement. Providing accurate data on UXO is essential not only to allow for a comprehensive and coordinated approach, but the information can also be used to justify proposals when making requests to fund UXO activities.

A model approach for those affected countries in the region

Since 2009, a British Not-for-Profit NGO called Cleared Ground Demining (CGD) has been clearing UXO left over in Palau from the WWII Battle of Peleliu. The activities currently undertaken in Palau set a bench mark in the region for the Forum Island countries and for international initiatives to be provided in the region. The model used in Palau is based on a humanitarian approach which is focused on building local capacity, involving all sectors of the community (community based)in a pro-active approach to deal with UXO and promote socio-economic development issues. In the 20 months that CGD have been in operation, they have cleared 9,106 UXO items and have trained seven local staff.

5. Conclusion and Recommendations

The UXO scoping missions in the target countries of Kiribati, Palau, PNG and Solomon Islands highlighted a number of issues with respect to the impacts of UXO, assessing the current activities taken to address UXO issues, and challenges experienced in affected countries.
It is evident from the research conducted in the selected countries that UXO is a development issue that endangers lives and threatens socio-economic activities. Responses to date have been intermittent and undertaken on an ad hoc basis with support from external partners possessing the necessary resources and technical capability.

In undertaking the study a number of commonalities were identified in the countries visited, which are likely to be reflected in other Forum Island Countries also affected by UXO. In response, a number of recommendations have been developed.

These recommendations can be divided into four main categories:

i. **Enhancing the technical capacity for affected FIC’s to manage their UXO initiatives**

   - It is recommended that:
     - Members should seek to ensure agencies responsible for managing the UXO issues are provided the necessary technical skills through access to recognized UXO training;
     - A regional training program on UXO clearance activities should be considered for affected Forum Island Countries;
     - Members should seek to ensure agencies should be properly equipped with UXO equipment to conduct clearance activities;
     - Members should seek to strengthen existing local initiatives and mechanisms by applying International Mine Action Standards requirement when conducting UXO activities;
     - Forum Member government agencies and other stakeholders should seek to support activities focused on building local capacity (proactive approach);

ii. **UXO risk awareness activities to be conducted in UXO affected Forum Island Countries**
It is recommended that:

- Agencies should conduct risk reduction awareness activities such as identification through mapping, marking and surveying of UXO in contaminated communities;

- Risk education awareness should be developed along with current public awareness programmes that are being delivered such as those on domestic issues and HIV/AIDS programmes.

- Members should seek to raise the level of community awareness about the potential dangers and risks of UXO as well as measures to mitigate and reduce risk;

- Members should seek to ensure future international development assistance provided to members should include or reflect the issue of UXO;

- Research should be undertaken to determine possible environmental degradation due to UXO contamination of marine life and habitats;

iii. Coordinating activities among government agencies and international partners that have been undertaken to address UXO

It is recommended that:

- Members should seek to ensure that current and future activities on UXO assistance be coordinated among all stakeholders involved;

- Certified and appropriate international clearance organization should be engaged to assist carry out clearance programs

- Information on UXO activities should be stored and maintained in order to provide comprehensive, accurate, and easily accessible information for national authorities and all stakeholders;

- Members should seek to take national ownership of UXO problems at the highest level of government and should develop sustainable national capacities to undertake UXO activities;

- Initiatives to strengthen national capacity should consider and integrate UXO activities into national, provincial and local development programs such as incorporating UXO clearance components into their infrastructure development projects;
Government agencies and development partners should seek to support the activities that would be undertaken to manage the UXO activities;

A whole of Government approach be undertaken to include national agencies (police, environment & conversation, Public Works, Infrastructures development, health, Land & Physical Planning Fisheries & Marine and Foreign Affairs) and CSO when dealing with UXO activities;

iv. **Securing funding for sufficient resources and logistical support to address UXO**

It is recommended that:

- Members should seek to ensure that government at all levels should take ownership of the issue and where relevant reflect UXO activities into their national and sector development plans, programs and budgets.

- Bilateral and regional assistance initiatives provided to FIC’s should reflect UXO as a potential risk and obstacle to development;

- UXO initiatives should be pro-active when seeking assistance from international development providers;

- Where available national funding should be made available to support UXO activities.