CONTAMINATION

The extent to which Palau remains contaminated with anti-personnel mines is unclear. Palau is contaminated by explosive remnants of war (ERW) and UXO on many of its 200 islands, left over from World War II, when it was the scene of a number of land and naval battles between Japanese and American forces. An estimated total of 2,800 tons (2.8 million kg) of ordnance was dropped or fired on Palau. Much of this ordnance failed to detonate or was abandoned after the war, and as a result, an unknown amount of UXO remains on the land and in the sea, including in sunken ships. In February 2017, defensive maps detailing laid aircraft bombs, depth charges, and sea mines, were provided to the Palau authorities by the Japanese military, via a Japanese demining non-governmental organisation (NGO), the Japan Mine Action Service (JMAS).

CGD conducted a community survey on Peleliu island in late 2009 that found that more than one-quarter of households or community infrastructure were contaminated with ERW. Local inhabitants are exposed to ERW while hunting, fishing, collecting shellfish, and engaging in agricultural activities. A follow-up survey of all households in Peleliu state and Angaur state was conducted in 2010, which led to further reports of contamination in agricultural areas, including taro fields and banana plantations, as well in traditional food-gathering areas where the population collects land crabs and hunts fruit bats for food.

Clearance efforts to date have included “a combination of spot tasks” in response to reports of UXO, visual battle area clearance of general areas and sub-surface clearance of specified areas, like walking tracks and around the power station.” In Peleliu the work has reportedly “been complicated” by the presence of UXO in caves, and also the presence of human remains and war artefacts in the areas where UXO are found.

RECOMMENDATIONS FOR ACTION

- Palau should ensure that permission is granted for non-technical survey of Peleliu and Ngiwal states.
- Palau should ensure that the remainder of historical information on contamination, survey, and clearance is acquired, including Cleared Ground Demining (CGD) data from Peleliu and Ngiwal states, in order to complete population of the unexploded ordnance (UXO) database in Information Management System for Mine Action (IMSMA).
- Palau should obtain the necessary information regarding the mines reportedly found and cleared by CGD on Peleliu state in 2014–15, and determine if there are areas suspected to contain anti-personnel mines, especially the caves in the Umurbrogol mountains (Bloody Nose Ridge). If suspected mined areas are believed to exist, Palau should complete survey of these areas as soon as possible, to determine whether or not any anti-personnel mines remain.
In 2011, Palau stated for the first time in its Anti-Personnel Mine Ban Convention (APMBC) Article 7 transparency report that it had mined areas on its territory. Contamination to date has included Japanese anti-vehicle and anti-personnel mines as well as sea mines, with anti-personnel mines reported in the Umubrogol mountains (Bloody Nose Ridge) and Death Valley regions of Peleliu state. In its earlier Article 7 reports, Palau had declared no known or suspected mined areas.

Subsequently, in its Article 7 report for 2011, Palau stated that clearance had been completed of all anti-personnel mines at the only two areas with confirmed contamination. It was also reported that areas containing sea mines remained to be cleared. Palau further reported that areas containing abandoned anti-personnel mines remained in caves at Bloody Nose Ridge in the Umubrogol mountains in Peleliu state, recording that: “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 34 caves to date.”

At that time, CGD confirmed that anti-personnel mine contamination was only of abandoned stockpiled mines. In December 2011, in its statement to the APMBC Eleventh Meeting of States Parties, Palau claimed that it was not “obligated under the AP Convention to destroy emplaced antipersonnel mines because it never produced, stockpiled, used, nor transported them.”

In its Article 7 report for 2012, Palau reported that “AP Landmines have been found on Bloody Nose during the course of ERW clearance over the past three years. The AP landmines have been found emplaced and fused but unarmed in the ground as well as stored within defensive cave and tunnel complexes,” and that “ongoing clearance operations are removing these AP Landmines.” In addition, Palau also reported JE-type sea mines in two locations in Airai state, and affirmed that the mines had been used in both anti-boat and anti-personnel roles. Palau also reported that its contamination “was a result of a fiercest battle fought in the Pacific during WWII. With such circumstance, Palau is seeking assistance toward island wide survey to know its mine[d] areas and or suspected mine[d] areas.”

Palau did not submit Article 7 reports for 2013, 2014, or 2015, as it is obligated to do by the APMBC. In December 2015, however, CGD reported having cleared laid and armed anti-personnel and anti-vehicle mines in Palau between January 2014 and November 2015. The location of clearance was not specified, but was believed to be Bloody Nose Ridge, Peleliu state.

In its UXO Action Plan 2017–19, Palau records that “A total of 43 anti-personnel landmines have been cleared”, and that “it has ‘cleared all known mined areas’ in compliance with the APMBC.”

In October 2016, the Palau authorities confirmed they were in the process of applying Palau’s UXO Policy and would collect relevant data from clearance operators to build Palau’s understanding and awareness of contamination and for its submission of APMBC transparency reports.

In 2017, Palau submitted its Article 7 transparency report for 2016, in which it reported that there have “never been validated mined areas that contain or are suspected to contain anti-personnel mines under the jurisdiction or control of Palau.”

**PROGRAMME MANAGEMENT**

Palau is in the process of establishing a mine action programme to address its ERW/mine contamination. Under the authority of Executive Order No. 335 of 14 May 2013, issued by the Office of the President, a UXO Advisory Committee was established. The Committee has reportedly met a number of times since it was established, and an informal working group established in 2010 had also met prior to the establishment of the Committee.

In June 2015, during meetings between Norwegian People’s Aid (NPA) and government officials from the National UXO Advisory Committee, it was decided that a series of capacity building workshops would be held with the government, with support from NPA and funding from the United States. The aim of the workshops was to support Palau’s development of a national UXO policy, a national UXO action plan, and draft national UXO standards. A first workshop was held in July 2015, a second in August 2015, and the third and final workshop in January 2016.

Palau’s national mine action programme is now structured according to its UXO Policy, which was enacted by Presidential Executive Order 392 in March 2017, and which authorises the establishment of a national coordination system and a unified database mechanism.

As at August 2017, Palau was said to have the capacity to direct trained national personnel to clear priority areas of abandoned explosive ordnance (AXO) and UXO, and to conduct low-order demolitions on single items using thermite. A new government demolition area is planned to become operational soon, which will be run by the National Safety Office and will be available to all clearance operators.

**Strategic Planning**

The UXO Advisory Committee has overseen the development of the UXO Policy and UXO Action Plan 2017–19, which were enacted by Presidential Executive Order 392, signed on 1 March 2017.

The UXO policy outlines national coordination measures and assigns responsibilities to the relevant ministries. It also formally documents the role of the UXO Advisory Committee, which is composed of government ministries, states, agencies, and organisations. The Director of the Bureau of Domestic Affairs within the Ministry of State acts as the secretariat.

Furthermore, a UXO Technical Working Group, chaired by the National Safety Office and consisting of representatives at working level from each ministry, Palau’s states, and other concerned organisations, has been established by the Advisory Committee. The UXO Technical Working Group assists the Advisory Committee with its work, particularly on the technical aspects of UXO destruction.
Palau, in conjunction with international partners including NPA, CGD, and JMAS, is planning, coordinating, and implementing a nationwide, non-technical survey (NTS), referred to in the UXO Action Plan 2017–19 as a “general UXO survey”, to confirm the UXO-affected areas of the country. NPA is conducting the non-technical survey, which “will gather documentary information from a variety of sources, such as previous surveys, NGO progress reports, other ministries, states, police, construction agencies, dive operators and historical records. All data collected during the general survey is to be stored in IMSMA.” In addition, all information from NPA is backed up and delivered to the Palau Automated Land and Resource Information System (PALRIS), in the Office of Planning and Statistics, which sits under the Ministry of Finance. In order to better understand the level of remaining contamination and to manage clearance efforts, Palau strongly encourages its international partners, including CGD, in the spirit of cooperation, to share data to be qualified and quantified in Palau’s geographic information system (GIS) system for sustainable development.

**Standards**

The UXO Advisory Committee is also tasked to determine rules and regulations for the quality and standard of work performed by agencies like the National Safety Office (in the Ministry of Infrastructure, Industries and Commerce), the police, international organisations, NGOs, and foreign militaries. These rules and regulations, known as ‘Palau UXO Standards’, are based on the International Mine Action Standards (IMAS) and have been drafted with the support of NPA.

NPA supported the Palau National Safety Office in the drafting of the Palau UXO standards. An initial workshop in August 2015 identified a list of 21 UXO standards needed in Palau – this included adopting certain IMAS in full, tailoring others to the situation in Palau, and developing some standards for situations unique to Palau. According to Palau’s UXO Action Plan 2017–19, “This should not become a long and drawn-out process, and standards should be issued in draft form as soon as possible and then reviewed after six months of application.” As at April 2017, Palau reported that it was still in the process of reviewing the draft national standards. In July 2017, the standards were streamlined to concentrate more on permissions and legalities for the removal of ERW rather than the technical aspects of clearance.

**Information Management**

Previously, no centralised database contained historical information/data on, for example, the location and clearance of UXO, which could be retrieved for planning and prioritisation purposes. However, with the support of NPA, the National Safety Office established a national UXO database in January 2017, to coordinate survey and clearance of UXO and mine contamination.

With the adoption of the UXO Policy and UXO Action Plan 2017–19, the Palau authorities now have a mandate to collect historical data from operators conducting UXO and landmine clearance in Palau, and verify and qualify data for reporting to the Palau leadership, local communities, and the international community. With the appropriate structure now in place, Palau will be better placed to report on ERW contamination, survey, and clearance to the Palau authorities, local communities, and the international community, including as part of its obligations under the APMBC.

The National Safety Office now receives both historical and current data on contamination, survey, and clearance, to populate the IMSMA database. All items found to-date have been reported by operators, and entered into the UXO database, with the exception of historical data from CGD. Although CGD is now submitting its 2017 clearance data, as at September 2017, it had yet to submit its data from 2009 to 2016 to the Palau National Safety Office for entry into the national UXO database, and for qualification and validation. In addition, as at July 2017, the United States corps of engineers had yet to provide details of the location and type of explosive ordnance cleared during decades of clearance and construction work in Palau.

**Operators**

CGD has been conducting ERW clearance operations in Palau, both on land and in the sea, since 15 September 2009. The clearance project is focused on Peleliu and Angaur – two southern islands of Palau, and aims to reduce the immediate risk of ERW on local communities and tourists.

In 2012, JMAS, a Japanese demining NGO, began working in Palau, with a focus on underwater UXO clearance. JMAS’s activities to date have included monitoring of the ‘Helmet Wreck’ off Malakal, Koror, and other wreck sites, and undertaking underwater surveys. JMAS planned to deploy two explosive ordnance disposal (EOD) teams for UXO survey in 2017, each of which would conduct a ten-day survey each month, using GPS and aqua-sonar equipment, magnetic anomaly detectors, underwater remote-controlled cameras, underwater scooters, still and video cameras, and protective diving suits.

As at March 2017, JMAS was awaiting authorisation and approval of the required permits to begin its 2017 projects, during which it planned to survey and clear the ‘Helmet Wreck’, and extend its operations to Ngatpang state and Ngeremlengui state after obtaining the required authorisation and permits. The required authorisations, approvals, and permits from Koror state were issued during subsequent months. As at September 2017, JMAS was still awaiting the necessary documentation from the states of Ngatpang and Ngeremlengui, although JMAS did conduct a survey of the port of Ngeremlengui state as part of the submarine fibre-optic-cable project under the Ministry of Finance.

In 2015, NPA received a grant to assist Palau to strengthen national capacity to manage and coordinate the UXO sector, and to help undertake surveys and UXO clearance; and subsequently initiated a programme of support. NPA reported that from April 2017 it had begun working under the National Safety Office, as the “ERW/UXO team”. NPA planned to continue to transfer national capacity to this team in 2017.

In addition, NPA began non-technical survey on 15 September 2016, employing 11 mine action personnel to conduct the survey. NPA’s mine action team has undergone EOD level 1 training and was scheduled to...
undertake EOD level 2 training in May 2017. In January 2017, NPA began clearance of spot tasks, followed by clearance of hazardous areas in March. In addition, as at August 2017, personnel had also been assigned permanently to provide EOD cover to Palau’s water and sewer improvement projects. NPA has also conducted EOD level 1 training for the Koror State Rangers and the Police department, and conducted joint clearance operations with the Koror State Rangers in 2017. In addition, the Safety Office ERW/UXO team will conduct risk assessments for all planned infrastructure work.

All three NGOs rely on direct funding from foreign donors, which includes the Governments of Belgium, Japan, New Zealand, and the United States. Palau expected its mine action capacity to remain the same in 2017.

In addition, mines were also believed to have been encountered during a “Last Human Remains Mission” undertaken in 2015 by Japan in a repatriation operation involving the Palau Historic Preservation Office (HPo), also known as the Bureau of Cultural and Historic Preservation, under the Ministry of Community and Cultural Affairs (MCCA). The Government of Japan will reportedly clear caves on Peleliu as part of the programme to repatriate human remains from World War II.

**LAND RELEASE**

NPA started non-technical survey on 18 September 2016, in the state of Koror. As at August 2017, NPA had completed non-technical survey of all states, except for Peleliu and Ngiwal, where permission had not yet been granted for non-technical survey. No evidence of anti-personnel mine contamination had been found in non-technical survey operations to date.

JMAS did not encounter any anti-personnel mines or sea mines in 2016, but it did discover 10 items of ERW in the shallow waters off Koror state. In addition, JMAS found three ammunition boxes and four depth charges at Chuyo Maru, and four ammunition boxes, one machine gun shell container, one cartridge container, and one “unknown” container in Urakami Maru.

In February 2017, CGD confirmed it had not encountered any emplaced anti-personnel mines during its clearance operations in Palau in 2016. Previously, however, in December 2015, CGD reported having cleared five type 93 HE blast anti-personnel mines, which were laid and armed, in two separate caves, between January 2014 and November 2015. CGD also reported clearing during the same period: one yardstick anti-vehicle mine, found on a beach; three JB spherical anti-vehicle mines, found in three separate locations (underwater and in mangroves); 12 JE HE blast mines, found in nine different locations (in mangroves and residences); and one improvised mine (using modified aircraft bomb components), found on a beach.

According to CGD, these mines can “be classed as anti-vehicle or anti-personnel (as both of those types deployed in World War II in Palau can be activated by people).” These mines are covered by the APMBC.

As at July 2017, CGD had provided data on ERW cleared in 2017, but had yet to provide the National Safety Office with the requested historical information on suspicious, laid or armed landmines found in Peleliu state. Until this information is provided by CGD, the Palau authorities are unable to validate and qualify the information regarding the anti-personnel mines reported by CGD in 2015.

**ARTICLE 5 COMPLIANCE**

Under Article 5 of the APMBC, Palau is required to destroy all anti-personnel mines in mined areas under its jurisdiction or control as soon as possible, but not later than 1 May 2018.

Until recently, it was not believed that Palau had mined areas containing anti-personnel mines, other than a residual risk of contamination. Rather, it was thought the remaining mines were in abandoned stockpiles, which fall under Article 4 of the APMBC. However, in December 2015, CGD reported clearing a number of emplaced anti-personnel mines between January 2014 and November 2015.

As at April 2017, Palau reported that JMAS and NPA had not reported any emplaced, laid, or armed anti-personnel mines since 2012, and that CGD had yet to submit its information and data to the National Safety Office for entry into the national UXO database, and for validation and qualification. Failure of CGD to submit its pre-2017 survey and clearance data, including regarding its clearance operations in Peleliu state, is preventing Palau from gaining a full understanding of the national status of ERW contamination.

In 2017, when asked whether Palau intended to submit an Article 5 extension request, Palau responded that the National Safety Office would “submit its APMBC Article 7 reporting until such time the Palau National Safety Office have validated information about suspicious, laid or armed landmine in its jurisdiction”. In its Article 7 report for 2016, however, Palau maintains that with respect to the location of mined areas: “This matter is not applicable as there have never been validated mined areas that contain or are suspected to contain anti-personnel mines under the jurisdiction or control of Palau.”

The Palau authorities affirm that once CGD provides the National Safety Office with the requested CGD survey and clearance data, including information on any laid and armed anti-personnel mines discovered, they will then be in a position to validate and qualify this information, in order to determine whether or not any suspected mined area exists in Palau.
1 Statement of Palau, Sixth Meeting of States Parties, Zagreb, 29 November 2005.
2 US military statistics included in the document provided to Landmine Monitor by email from Cassandra McKeown, Finance Director, CGD, 19 May 2010.
4 Emails from Luke Atkinson, Programme Manager, Norwegian People’s Aid (NPA), 11 and 12 July 2017.
5 Draft document provided to the Monitor by email from Cassandra McKeown, CGD, 19 May 2010; and CGD, "Republic of Palau Project", at: www.clearedground.org.
6 Document provided to Landmine Monitor by email from Cassandra McKeown, CGD, 19 May 2010.
7 Email from Cassandra McKeown, CGD, 18 July 2011.
9 Article 7 Report (for 2010), Form C.
10 Article 7 Report, Form C, for the periods 1 May to 14 September 2008 and 16 September 2008 to 16 September 2009.
11 Article 7 Report, Form C (for 2011).
12 Email from Cassandra McKeown, CGD, 18 July 2011.
14 Article 7 Report (for 2012), Form C.
15 Ibid.
16 Ibid.
17 Email from Steve Ballinger, Operations Director, CGD, to the Palau Authorities, 1 December 2015.
19 Email from Eunice Akiwo, Director, Bureau of Domestic Affairs, Ministry of State, 20 October 2016.
20 Article 7 Report (for 2016), Form C.
24 Emails from Balkuu Kumangai, Ministry of Public Infrastructure, Industries and Commerce, 3 April 2017; and Luke Atkinson, NPA, 21 March 2017; Article 7 Report (for 2016), Form J.
26 Article 7 Report (for 2016), Form A.
27 Email from Balkuu Kumangai, Ministry of Public Infrastructure, Industries and Commerce, 3 April 2017.
32 Email from Eunice Akiwo, Ministry of State, 29 September 2017.
35 Email from Balkuu Kumangai, Ministry of Public Infrastructure, Industries and Commerce, 3 April 2017.
38 Email from Eunice Akiwo, Ministry of State, 21 April 2017.
39 Article 7 Report (for 2016), Form A.
40 Email from Balkuu Kumangai, Ministry of Public Infrastructure, Industries and Commerce, 3 April 2017.
47 CGD, "Republic of Palau Project".
49 Email from Yasuo Terada, JMAS, 17 March 2017.
50 Ibid.
51 Email from Yasuo Terada, JMAS, 13 October 2017.
57 Email from Balkuu Kumangai, Ministry of Public Infrastructure, Industries and Commerce, 3 April 2017.
58 Email from Steve Ballinger, CGD, to the Palau Authorities, 1 December 2015.
61 Email from Yasuo Terada, JMAS, 17 March 2017.
63 Email from Steve Ballinger, CGD, to the Palau Authorities, 1 December 2015.
64 Ibid.
65 Ibid.
66 Email from Balkuu Kumangai, Ministry of Public Infrastructure, Industries and Commerce, 3 April 2017.
67 Interview with Eunice Akiwo, Ministry of State, in Geneva, 8 February 2017.
68 Email from Steve Ballinger, CGD, to the Palau Authorities, 1 December 2015.
69 Interview with Steve Ballinger, CGD, to the Palau Authorities, 8 February 2017; and email from Luke Atkinson, NPA, 21 March 2017.
70 Email from Balkuu Kumangai, Ministry of Public Infrastructure, Industries and Commerce, 3 April 2017.
71 Article 7 Report (for 2016), Form C.
72 Interview with Eunice Akiwo, Ministry of State, in Geneva, 8 February 2017.