

Draft Environmental Impact Statement Infrastructure Improvements at the Yap International Airport and the Yap Seaport

Yap State, Federated States of Micronesia

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Appendix N
Socioeconomic Study (2026)



—*Final*—

Oral History Component of a Socioeconomic Study in Support of the Environmental Impact Statement for Yap International Airport and Seaport, Yap, Federated States of Micronesia

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INTERNATIONAL ARCHAEOLOGY, LLC

APRIL 2026



—FINAL—

**ORAL HISTORY COMPONENT OF A SOCIOECONOMIC STUDY IN
SUPPORT OF THE ENVIRONMENTAL IMPACT STATEMENT FOR
YAP INTERNATIONAL AIRPORT AND SEAPORT, YAP,
FEDERATED STATES OF MICRONESIA**

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ABSTRACT

At the request of HHF Planners, International Archaeology, LLC, prepared this oral history report to support a U.S. National Environmental Act Policy Environmental Impact Statement for the proposed military construction projects at Yap Airport and Seaport, Yap State, Federated States of Micronesia. This study employed oral history interviews to document potential beneficial and adverse effects to economic activities and cultural resources by the proposed development projects.

Six Yap municipalities will be potentially impacted by the proposed projects. Ten cultural consultants from the municipalities of Rull, Dalipebinaw, and Weloy were interviewed between October 24 and October 28, 2025. Consultants from Tamil, Gagil, and Gilman municipalities could not be interviewed due to logistical constraints and consent-related issues. All interviews were conducted using an informed consent process that clearly explained the goals and purpose of the study, documented voluntary participation through signed consent forms, allowed participants to withdraw at any time, and permitted consultants to review, revise, and approve their interview transcripts prior to inclusion in the study. Consultants were encouraged to discuss their concerns about the proposed projects in their own words and preferred modes of expression. Approved transcripts were analyzed using thematic categories that will be addressed in the broader socioeconomic study.

Analysis of the interview data indicates that the primary concerns expressed by cultural consultants regarding the proposed military construction projects are the potential disturbance or relocation of burial sites and graves, damage to terrestrial and marine resources during construction activities, the loss of housing materials such as nipa palm (*Nypa fruticans*) and mahogany within project areas, receiving compensatory economic benefits from the projects, and the potential disruption of Yapese cultural continuity and social cohesion resulting from associated economic and technological changes.

Based on these findings, the following mitigation measures are recommended:

1. Follow proper Yapese cultural protocols when consulting local communities regarding potential project impacts.
2. Consult directly with grave owners and private property owners regarding potential disturbances, avoid and protect burial sites where possible, and provide financial and logistical assistance if relocation of graves is unavoidable.
3. Protect terrestrial and marine resources through planning, implementation of engineering controls, and replacement or restoration of important plant resources such as nipa palm.
4. Negotiate financial compensation and/or replacement resources to offset damage to private property and natural resources.
5. Protect Yapese cultural places, resources, and values wherever feasible to support cultural stability and continuity.

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I. INTRODUCTION

At the request of HHF Planners, International Archaeology, LLC (IA) prepared this oral history report to support a U.S. National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS) for the proposed military construction (MILCON) projects at Yap Airport and Seaport, Yap State, Federated States of Micronesia (FSM) (Figure 1 and Figure 2). All work was performed in compliance with the work plan (Napolitano and Pacheco 2025), the Compact of Free Association (COFA), Operational Control Letter (OCL) dated March 25, 2025, and Yap/Department of Defense (DoD) Environmental Standard Operating Procedures. Work was performed under applicable federal contract regulations, Compliance with Local Labor Laws (Overseas) (DFARS 252.222-7002), standard operating procedures (SOPs), all applicable cultural resource laws, implementing regulations, policies, and the Statement of Architect-Engineer Services (SAES).

SCOPE OF WORK

The oral history study documented stakeholder community opinions on potential beneficial or adverse effects to economic activities and cultural resources by the proposed development projects. The results of this study will be incorporated into the socioeconomic study. The socioeconomic study will aid in project decision making and the establishment of appropriate mitigation measures.

STUDY AREA

The study area includes six Yap municipalities that could be impacted by the proposed projects: Rull, Dalipebinaw, Tamil, Weloy, Gagil, and Gilman (Figure 3).

PERSONNEL AND DATES OF FIELDWORK

Hannah Kaumakamanōkalanipō Anae, M.A., and Matthew F. Napolitano, Ph.D., were the Ethnographers who conducted and recorded the oral history interviews. Sarphina Gudiiy and Caroline T. Dabgusi were the Field Assistants. Josephine Libian is the Environmental Liaison for DoD projects in Yap and selected the Field Assistants and coordinated permissions to conduct interviews in the villages.

In September 2025, the U.S. government requested that potential Field Assistants be identified. Coordination between YUMO and COP to select Field Assistants took place on October 21, and full permission to begin selection was granted October 22. A meeting with COP to introduce the socioeconomic study, request permission to conduct interviews in the six municipalities, and hire Field Assistants was held on October 23, 2025. To expedite the hiring process, Ms. Libian identified several potential Field Assistants before the meeting and asked permission from their respective municipal chiefs during the meeting to select them for the project. Twelve interviews were conducted on Yap from October 24 to 28, 2025. A fieldwork timeline is presented in Table 1.

DISPOSITION OF FILES

Digital copies of signed consent forms, interview recordings, interview transcripts, and consultant photographs are permanently curated on the IA computer servers in Honolulu, Hawai‘i. All interview products, including audio recordings, transcripts, annotated maps, and photographs, will be delivered to the

DoD, the Yap-U.S. Military Operations Task Force (YUMO), the Council of Pilung (COP), and the Yap State Historic Preservation Office (YSHPO) for permanent curation following completion of the study.

ORGANIZATION OF THE REPORT

The oral history report is organized in four sections and two appendices. Section I introduces the project. Section II describes the methods used for the oral history interviews and analysis. Section III summarizes the oral history interviews and applies the interview data to the broad themes of the socioeconomic study. Section IV contains recommendations for project decision making and mitigation measures based on analysis of the interview data. Appendix A contains the informed consent forms reviewed and signed by consultants before their interviews. Appendix B contains the complete transcripts of all interviews used in the report. A glossary of Yapese words used in the text is presented after the references.

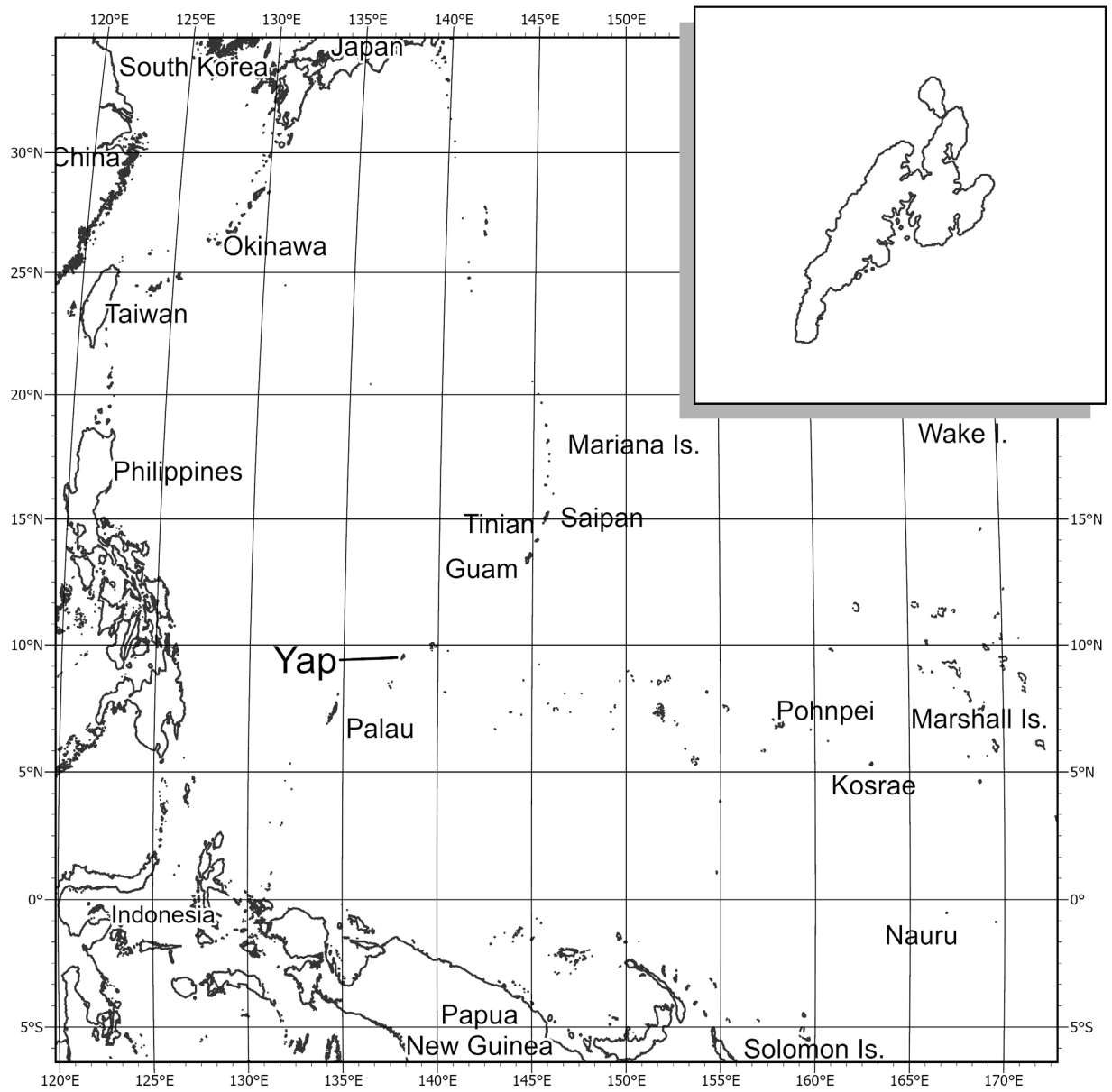


Figure 1. Location of Yap.

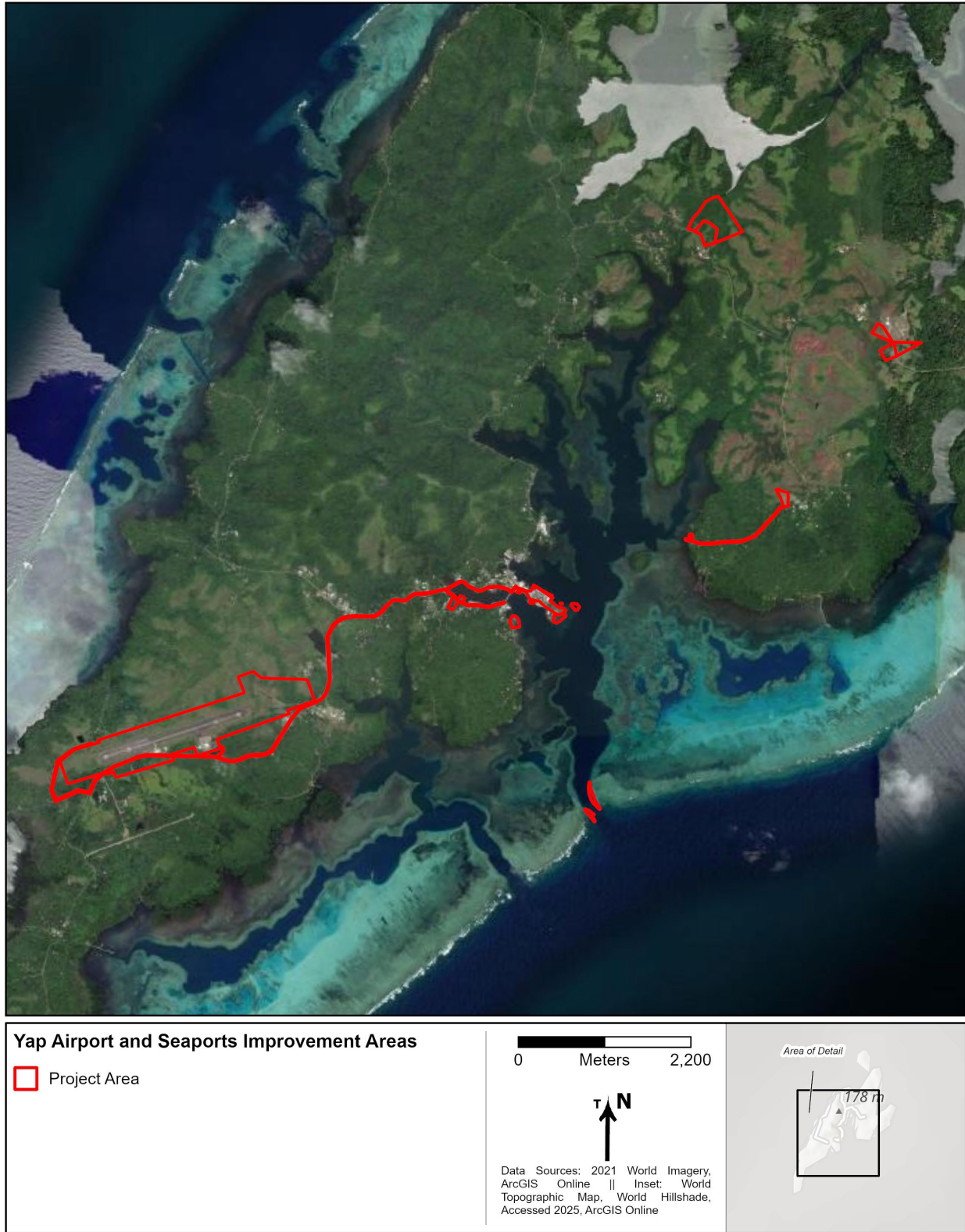


Figure 2. The Yap International Airport and Seaport project areas (World Imagery, ArcGIS Online).



Figure 3. Yap municipalities (United States Geological Survey 1996).

Table 1. Fieldwork Timeline.

Date	Event
Tuesday, October 7, 2025	Deadline for YUMO and COP to select Field Assistants
Sunday, October 12, 2025	IA team arrives on Yap for fieldwork
	In-brief meeting and slide deck, consent form, and sample questionnaire shared with YUMO
Tuesday, October 14, 2025	YUMO requests a one-page fact sheet for COP including rate of pay and requests copies of unredacted transcripts
Wednesday, October 15, 2025	IA revises one-page fact sheet and consent form to address feedback from YUMO
Thursday, October 16, 2025	Consent form and one-page fact sheet resubmitted to YUMO; fact sheet states that redacted transcripts will be shared with YUMO after 30-day consultant review
Tuesday, October 21, 2025	Permission given to recruit Field Assistants in Rull
	Meeting with COP to introduce the project and request Field Assistants from Weloy, Dalipebinaw, Tamil, Gagil, and Gilman
Thursday, October 23, 2025	IA meets Field Assistant from Rull and Field Assistant from Weloy
Friday, October 24, 2025	Three interviews completed (Rull and Dalipebinaw)
Sunday, October 26, 2025	Two interviews completed (Rull)
Monday, October 27, 2025	Three interviews completed (Rull and Weloy)
	Two interviews completed (Rull)
Tuesday, October 28, 2025	IA team departs Yap

II. METHODS

The following section presents the methods used during the study.

ORAL HISTORY INTERVIEWS

The primary source of ethnographic information for the oral history report comes from long-form interviews with 10 Yapese residents from three of the six municipalities that could be impacted by the proposed projects. Eight consultants are from the villages of Balabat, Ngolog, and Yinuf in Rull Municipality, one is from Kanif Village in Dalipebinaw Municipality, and one is from Dugor Village in Weloy Municipality. Consultants from Tamil, Gagil, and Gilman municipalities could not be identified and/or interviewed due to logistical constraints and consent-related issues. Two additional interviews were terminated by the cultural consultants who retracted their consent, and the audio recordings were destroyed.

OUTREACH AND PARTICIPATION

Ethnographic interviews were originally planned with male and female community members of Rull, Dalipebinaw, Tamil, Weloy, Gagil, and Gilman. To achieve this, two Field Assistants—a male and a female—were intended to be selected from each of the municipalities by YUMO and the COP. The Field Assistants would then help select interview consultants from their home municipalities in coordination with the municipal chiefs.

In September 2025, the U.S. government requested that potential Field Assistants be identified. The IA team arrived on Yap on October 12. Coordination between YUMO and COP to select Field Assistants took place on October 21, and full permission to begin selection was granted October 22. A meeting with COP to introduce the socioeconomic study, request permission to conduct interviews in the six municipalities, and hire Field Assistants was held on October 23, 2025. To expedite the hiring process, Ms. Libian identified several potential Field Assistants before the meeting and asked permission from their respective municipal chiefs during the meeting to select them for the project.

INFORMED CONSENT PROCESS

During the interviews and report preparation, the Ethnographers employed an informed consent process in accordance with guidelines from the American Anthropological Association. This process was conducted in English and Yapese via a native speaker:

1. Prior to the interview, the Ethnographer explained to the consultant the consent process, the project purpose, the intent of the study, and how the consultant's information would be used.
2. The Ethnographer provided the consultant with a copy of an Authorization and Release Form and reviewed its contents with the consultant. An interview was conducted and recorded only if the consultant agreed to participate by signing the form, and the consultant was given a copy of the form. The consultant had the right at any time to end participation in the interview, retract their consent, or request that their interview data be redacted.

3. Following the interviews, the consultant was given a copy of their transcribed interview, either as a digital (DOCX) or print copy, and allowed 30 days to make edits, corrections, deletions, or additions to the substance of their contribution. Only the transcript they approved was used for the study.

INTERVIEW PROTOCOL AND METHODS

One or two Ethnographers and one Field Assistant conducted all interviews in person. The interviews were conducted using a combination of English and Yapeese, with the Field Assistants acting as English-Yapeese translators.

The interviews were recorded with a digital audio recording device operated by the Ethnographer. All interviews were recorded in WAV format at 32-bit float bit depth and a 96 kHz sample rate suitable for archiving. Portrait photographs of the consultants were also taken with their permission for use in this report.

Objectives and Themes

During the interviews, consultants were encouraged to utilize their own experiences and knowledge of the proposed MILCON project areas to address issues that reflected their concerns, and to speak in their own style and language. To guide the interviews in accordance with the goals of the project, the Ethnographer asked open-ended questions with the assistance of the Field Assistant who asked the questions in Yapeese or English depending on the fluency and preference of the consultant. The Ethnographer actively listened to the answers, asked appropriate follow-up questions, and sought additional clarification, elaboration, and reflection as appropriate. The Ethnographer also respected the rights of the consultants to refuse to discuss topics or answer questions that made them uncomfortable or caused distress, and to take breaks or end the interview at their discretion.

The Ethnographer asked questions or guided the interviews to socioeconomic topics and issues relevant to the proposed MILCON project areas and surrounding lands. Interview questions are presented in Appendix C. The themes covered in the interviews are:

- graves and mortuary areas
- historical and archaeological sites
- traditional practices
- religious sites and practices
- food and subsistence resources
- cultural protocols and stewardship
- economic impacts

TRANSCRIPTION PROCESS

Following interview fieldwork, the field assistants used the interview audio recordings to generate draft transcripts of all interviews in DOCX (Microsoft Word) or ODT (OpenDocument Text) format. Each consultant was then given a copy of their transcribed interview, either as a digital or print copy, and allowed 30 days to make edits, corrections, deletions, or additions to the substance of their contribution. After review and correction, the approved transcripts served as the primary source of ethnographic data for the oral history report.

DATA ANALYSIS

The approved interview transcripts were reviewed by the report authors and interview data relevant to the themes of the socioeconomic study were selected through a thematic analysis using a deductive method. Recurring themes within individual interviews and across different interviews are highlighted in the data analysis. The results of the data analysis are presented in two sections. In the Interview Summaries section, the backgrounds and concerns of individual consultants are paraphrased as summaries; their full interview transcripts are presented in Appendix B of the report. In the Interview Themes section, consultant concerns are paraphrased and organized by socioeconomic theme, and shared concerns among different consultants are highlighted. Recommendations for project decision making and mitigation measures based on the data analysis are presented in Section IV of the report.

III. INTERVIEW RESULTS AND DATA ANALYSIS

The cultural consultants interviewed for the study, including their names, home municipalities, and interview dates, are presented in Table 2.

The Ethnographers generally noted that the consultants were reluctant to discuss specific topics in detail or provide place names, especially if their own land was unlikely to be impacted by development. Although the consultants agreed that the projects will generally impact people's ability to collect raw materials (e.g., lumber), food, and medicinal plants, they were somewhat vague about the specific resources that would be impacted. Consultants were also cautious about sharing oral histories and traditional place names in the potential impact areas, and learning a place name sometimes required several days of interviews with multiple consultants to reach a consensus.

Table 2. Consultants Interviewed for the Socioeconomic Impact Study.

Name	Municipality	Interview Date
Jeff Adalbai	Rull	10/24/2025
Leelkan Dabchuren	Rull	10/28/2025
Sebastian Theodore Flawyoch	Rull	10/26/2025
Aloysius Gaan	Dalipebinaw	10/24/2025
Terry Leewes	Rull	10/26/2025
James Gartamag Lukan	Weloy	10/27/2025
John Mafel	Rull	10/24/2025
Frank Ramnen	Rull	10/27/2025
Robert Ruwan	Rull	10/28/2025
Linda Muuth Teteth	Rull	10/27/2025

TRADITIONAL LAND MANAGEMENT ON YAP

To contextualize the interview results, we present a summary of traditional land and resource management on Yap, centered on the *tabinaw*.

The *tabinaw* is a comprehensive term referring to the traditional Yapese family unit and the customary estate owned by that family. The *tabinaw* is patrilineal and led by the eldest male of the family, who holds the highest authority over all affairs of the family unit and the estate (Krause 2016:36; Micronesian Seminar 1988). Younger men within the *tabinaw* are obligated to place their resources at the disposal of the eldest male, or chief, or risk losing their position and rights within the group (Micronesian Seminar 1988). However, each member of the *tabinaw* also holds distinct rights and responsibilities (14 FSM Intrm. 403 2006).

The *tabinaw* estate includes multiple parcels of land associated with a *daef*, or stone platform, where the *tabinaw* chief maintains his primary residence (Krause 2016:35). Each parcel has productive and social value for the *tabinaw*. For example, a *tabinaw* may contain taro patches located away from the main estate or include portions of the island's fringing reef where a *tabinaw* member has the exclusive right to exploit marine resources (Krause 2016:35; 14 FSM Intrm. 403 2006). Sources of fresh water—used for domestic consumption, agriculture, and maintaining soil fertility—are also tied to specific land parcels

within a *tabinaw*. Access to these resources is determined by the rank of the land and the status of the person using it (Hunter-Anderson 1986:13, 17).

Every village in Yap contains numerous *tabinaw* (14 FSM Intrm. 403 2006). All *tabinaw* on Yap are also ranked hierarchically in relation to one another. This hierarchy determines the social rank of the villages and individuals associated with specific *tabinaw* and forms what is often described as a “caste” system (Krause 2016:37–38). Virtually all land and water on Yap are controlled by a *tabinaw*, and the complex hierarchical system determines who has access to particular parcels, when access is permitted during the year, and what types of resources may be harvested from them.

On a broader scale, Yapese society is divided between the higher-ranking *pilung*, or landed class, and the lower-ranking *pimilngay*, or landless class (Krause 2016:38). The loss of land therefore represents a loss of social capital that cannot be replaced.

Land is the most valuable resource on Yap because of its vital role as a source of food and fresh water, as well as its relative scarcity on the island. This intense focus on land likely contributed to it becoming the central foundation of Yap’s social, political, and cultural organization (Krause 2016:34). A Yapese person’s relationship to land largely determines their personal identity and position within the island’s social hierarchy. However, it is the land itself, rather than the individual, that is imbued with power, authority, and social rank (Krause 2016:35–36). Social stratification on Yap can therefore be understood as a product of the sacred authority and responsibility vested in those who control land (Krause 2016:39).

Yapese chiefs who represent high-ranking *tabinaw* derive their authority from their role as the “voices” of the land, and this authority passes intact to their successors across multiple generations (Krause 2016:36). Accordingly, a chief takes his name from the highest-ranking parcel within his *tabinaw*, while other male family members receive their names from other parcels within the estate. These naming practices emphasize the deep personal association between individuals and the land. A *tabinaw* member’s name therefore functions not only as a marker of family identity but also as an indicator of social rank (Krause 2016:36–37).

INTERVIEW SUMMARIES

The following section contains summaries of the oral history interviews conducted for the study. Each summary includes a simple biography and portrait photograph of the consultant and a paraphrased synopsis of their concerns about the proposed MILCON projects.

JEFF ADALBAI AND JOHN MAFEL

Jeff Adalbai is the Mayor of Rull Municipality (Photo 1), and John Mafel is a senator representing Rull in the Yap State Legislature (Photo 2).

Mr. Adalbai and Mr. Mafel agree that Yap must accept certain project impacts to obtain the economic benefits the projects may provide. Mr. Adalbai describes the funding associated with the projects as a “once-in-a-lifetime” opportunity. Mr. Mafel notes that Yap’s Strategic Development Plan prioritizes environmental protection above all other considerations, but some community members believe economic development should take precedence. He does not believe that Yap residents have fully considered how environmental and economic concerns can be balanced.

Mr. Adalbai states that food resources in the project areas cannot be relocated and will be lost, and that if the airport expansion is not conducted carefully, natural resources such as mangroves and coral may decline in nearby areas. He recalls that large-scale ground disturbance during construction of the existing airport caused similar problems and wants the DoD to explain how these impacts will be mitigated during the new expansion.

Mr. Adalbai explains that residents who cannot afford tin roofs rely on nipa palm leaves (*Nypa fruticans*) for roof thatching, and he believes nipa palm availability will be affected by the projects, particularly in Rull communities such as Yinuf and Luwech. He proposes mitigation measures including replanting nipa palms in new swampy areas, establishing funds to research improved nipa palm cultivation or artificial alternatives, or providing tin roofs at no cost to households in need.



Photo 1. Mayor Jeff Adalbai. Photo taken on October 24, 2025.



Photo 2. Senator John Mafel. Photo taken on October 24, 2025.

LEELKAN DABCHURAN

Leelkan Dabchuran lives in the village of Balabat in Rull Municipality near the Yap Seaport (Photo 3).

Ms. Dabchuran believes the seaport project will cause broad economic harm by increasing imports of expensive goods, destroying coastal marine resources, and disrupting fishing rights for multiple communities, thereby threatening what she considers Yap's most important food source. She believes oil spills and chemical discharges from large vessels also damage marine life and mangroves. She is concerned that dredging will destroy fishing areas traditionally controlled by her family (the Taflang family) and impact Balabat's fishing grounds, which extend to the adjacent Tamil Channel. She acknowledges, however, that others have told her these fishing grounds are no longer economically important.

Ms. Dabchuran believes the airport expansion will disturb burial sites and taro patches and create noise impacts from increased air traffic. She emphasizes that disturbing burial areas is taboo in Yapese culture and notes that Yapese people actively preserve cultural practices because they are essential for survival on a small island. She also states that it is customary to replace any resources that are used or removed, including taro.

Ms. Dabchuran feels that consultation processes are often ineffective because many community members do not attend meetings and are not informed directly about anticipated projects. As a result, she believes only a portion of the community is consulted and that some residents do not fully understand the impacts of a project.



Photo 3. Leelkan Dabchuran. Photo taken on October 28, 2025.

SEBASTIAN THEODORE FLAWYOCH

Sebastian Theodore Flawyoch is from the village of Balabat in Rull Municipality (Photo 4). He describes himself as a typical village resident who owns ancestral land and taro patches, though he does not actively farm.

Mr. Flawyoch expects the projects to impact and potentially destroy local resources but believes the influx of project funding will improve the quality of life on Yap. He hopes additional flights will reduce airline ticket prices but worries that increased exports will deplete betel nut supplies, particularly during the dry season. He believes Yap residents should let go of the past and move on.

Mr. Flawyoch believes medicinal plants affected by construction can be found elsewhere on Yap and that taro patches can be relocated. He accepts that the seaport project will end fishing and fish traps in the channel and expects sediment to damage nipa palms and stream ecosystems, though he believes erosion control could mitigate some impacts.



Photo 4. Sebastian Theodore Flawyoch. Photo taken on October 26, 2025.

ALOYSIUS GAAN

Aloysius Gaan is a 72-year-old resident of Kanif Village in Dalipebinaw Municipality (Photo 5). He formerly fished, gardened, and cultivated betel nut but no longer has the physical capacity to do so.

Mr. Gaan believes construction and aircraft noise associated with the airport expansion will negatively affect Kanif. He reports that emissions from existing commercial flights already leave a black, sticky residue on plants, which he believes harms vegetation when washed into the soil by rain. He states these effects are most noticeable in Dalipebinaw, Rull, and Nimgil, a region encompassing the southern end of Dalipebinaw, Kanifay, and Gilman municipalities.

Mr. Gaan believes the airport expansion may affect a cemetery in Fed'or Village but has no family connection to the site and does not offer mitigation suggestions. He also observes declines in breadfruit trees, orange trees, and sea cucumbers, which he believes may be related to climate change.

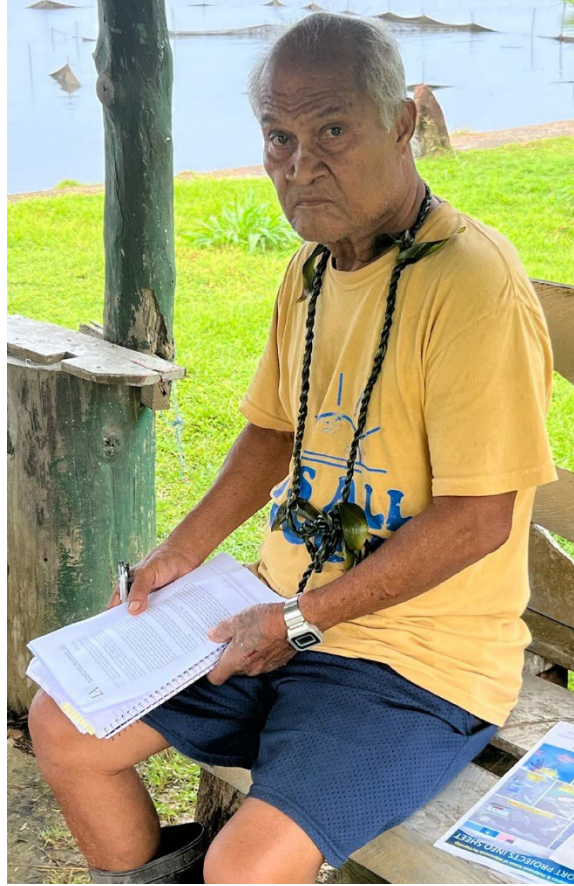


Photo 5. Aloysius Gaan. Photo taken on October 24, 2025.

TERRY LEEWES

Terry Leewes is from the village of Yinuf in Rull Municipality and resides within an airport safety zone near Yap International Airport (Photo 6). She manages taro patches and gardens, collects crabs, and maintains land resources but does not fish.

Ms. Leewes expects some resources to be affected by the projects but believes these impacts are necessary for Yapese communities to receive the project benefits. She seeks to protect actively used taro patches and states that if her own patches are disturbed, she could establish new ones outside the project area with assistance. She worries that increased export flights may deplete local food resources but hopes increased imports will offset these losses.

Ms. Leewes emphasizes that families or communities must be consulted before relocating taro patches, *wunbey* (stone platforms), or *rai* (stone money). She prefers that taro patches be preserved in place and provided with water and believes medicinal plants in the project areas can be found elsewhere.

Ms. Leewes describes a community cemetery at the east end of the airport runway near Yinuf called Dakaen ei Dakey, which includes a section known as Fit Leewes where seven of her family members are buried. She believes families must be involved in discussions about relocating the graves, while village chiefs may address community graves. She wants clarification on whether relocation assistance would be provided by the DoD or the Yap State Government.

Ms. Leewes recalls being advised by former Yap Governor John Mangafel (who served from 1979 to 1987) not to oppose a future runway extension and to seek government assistance if her graves needed relocation. Although she supports development on Yap, she believes its impacts are complex and not entirely positive.

Ms. Leewes reports declines in marine resources, coconut crabs, and bats, which she attributes to erosion, pollution, climate change, and noise. She identifies the mangrove area near the airport as Galil and emphasizes its role in erosion control, despite damage caused by Typhoon Sudal in 2004.

She states that mahogany trees used for housing in Yinuf will be affected by the runway extension, requiring the village to obtain materials from other communities. She is less concerned about other tree species that can be replanted. She also recalls her great-grandmother telling a story about a house with one wall in the center of the road between Yinuf and Dalipebinaw at the end of the existing runway, but she no longer remembers its significance.



Photo 6. Terry Leewes. Photo is undated.

JAMES GARTAMAG LUKAN

James Gartamag Lukan is from Dugor Village in Weloy Municipality and serves as General Manager of Waab Transportation Company, Inc., which has operated the Yap seaport for over 50 years (Photo 7).

Mr. Lukan supports increased ship traffic and believes the proposed seaport upgrades will significantly improve the port's operations. He highlights the importance of improved rubber fenders, navigational markers, and nighttime channel access, and notes that although the Yap State Government has committed funds to port improvements in the past, implementation has been slow. He also believes his company should be more actively consulted by the DoD about the improvements. He expects increased road congestion around the new MILCON facilities but hopes this will lead the Yap State Government to initiate more infrastructure improvements, including road and hospital upgrades.

Mr. Lukan believes traditional fishing practices were irrevocably disrupted during the Spanish, German, and Japanese colonial periods, and that additional impacts will not affect, or at least be openly acknowledged, by Yap residents. He identifies sediment control in the channel as Weloy's primary concern,

citing past road construction that damaged reefs. He believes most dredged sediment will settle in deep water and that corals will recover quickly, but he wants open discussions between the Weloy community and the DoD regarding dredging impacts rather than relying solely on written plans.



Photo 7. James Gartamag Lukan. Photo taken on October 27, 2025.

FRANK RAMNGEN

Frank Ramngen is a taro farmer in the village of Balabat in Rull Municipality near the Yap Seaport (Photo 8).

Mr. Ramngen expects negative impacts from the projects, including noise and aircraft emissions, but believes these impacts should be accepted as part of progress. He supports increased exports of betel nut and fish and notes that a recent shipwreck in the channel near Balabat has become a tourist attraction that could be affected by seaport construction.



Photo 8. Frank Ramngen. Photo taken on October 28, 2025.

ROBERT RUWAN

Robert Ruwan is from Ngolog Village in Rull Municipality and engages in small-scale farming and community work (Photo 9).

Mr. Ruwan believes the projects will modernize Yap and improve transportation but weaken natural productivity. He identifies erosion and aircraft emissions as major threats, particularly to fishing and mangrove ecosystems.

Mr. Ruwan reports continued use of taro patches, gardens, fish traps, and medicinal plants in his village. He supports preserving traditional practices while acknowledging the need for modernization. He emphasizes erosion control, improved flight scheduling, and cultural education for youth as priorities.

Mr. Ruwan does not know of graves affected by the seaport project but believes graves in Yinuf may be impacted. He thinks the new seaport will disrupt local fishing rights and cause the channel waters to become rougher but believes the project benefits will outweigh all negative impacts.



Photo 9. Robert Ruwan. Photo taken on October 27, 2025.

LINDA MUUT TETETH

Linda Muut Teteth is from the village of Yinuf in Rull Municipality near Yap International Airport (Photo 10). As one of the older women in her village, she is an active community member and typically leads cleaning, cooking, and funeral activities.

Ms. Teteth believes the projects will attract new residents to Yap but expresses concern about increased crime and human trafficking. She also believes the projects will create employment and educational opportunities that may reduce out-migration by Yap residents of working age. She feels some things will need to be sacrificed to gain these advantages but that this is the way of the world.

Ms. Teteth anticipates impacts on mangroves, streams, roads, wildlife, and taro patches near the airport. She suggests the DoD provide advance notice of noisy activities to nearby villages so they can prepare in advance, such as distributing and using earplugs. While she believes many taro patches are already declining, she would like to see them preserved or restored where possible, especially near the airport gate.

Ms. Teteth's primary concern is the potential disturbance of her family's burial area on the east side of the airport runway near the GPPC, Inc. yard. She and her brothers strongly oppose relocating the graves and believe Yap burial laws prohibit disturbance of marked graves. If relocation becomes unavoidable, she insists on full consultation with the family and DoD assistance.

Ms. Teteth also believes the projects are disrupting traditional land inheritance practices through land speculation and inappropriate claims. She says people are seeking ownership of unsurveyed land to sell or lease it to the DoD, and that villagers from Rumung are also buying land in Yinuf to lease for the

projects, taking advantage of Yinuf residents who want quick money but do not appreciate the lasting consequences of their actions. She also feels that Rumung residents who own Yinuf land assert culturally inappropriate privileges within the village.

Ms. Teteth believes there are World War II-era sites in the Lamaer and Luweech areas south of Yinuf that are important to Yapese history and attract American and Japanese tourists. She says a new paved road will cut through a stone path leading to Terry Leewes's house, but this impact was discussed and agreed to long ago. Her aunt used to gather medicinal plants from the project areas, but she does not know if anyone uses them anymore.



Photo 10. Linda Muut Teteth. Photo taken on October 27, 2025.

INTERVIEW THEMES

Six socioeconomic themes guided the oral history interviews: graves and mortuary areas, historic and archaeological sites, traditional practices, religious sites and practices, food and subsistence resources, cultural protocols and stewardship. Consultant responses about economic impacts are integrated into each of these themes.

GRAVES AND MORTUARY AREAS

Several consultants express concern about a cemetery near the village of Yinuf in Rull Municipality that could be impacted by the airport expansion. The cemetery, known as Dakaen ei Dakey, encompasses several acres near the GPPC, Inc. yard on the east side of the existing runway.

Yinuf residents Linda Muut Teteth and Terry Leewes have family members interred in this cemetery in plots near Ms. Leewes's residence. Ms. Teteth is strongly opposed to relocating her family's graves and advocates for protecting her plot in place, potentially by fencing it within an airport safety zone. Ms. Leewes's family plot, known as Fit Leewes, contains the graves of seven family members. While she is willing to consider relocation, she expects financial and logistical support from the Yap State Government or the DoD. Although Ms. Leewes generally supports development and reports being advised by former Yap Governor John Mangafel not to object to grave relocation for the airport expansion, she views the issue as complex and deeply problematic.

Both Ms. Teteth and Ms. Leewes emphasize that families who own graves must be directly consulted regarding any proposed relocation and included in all subsequent discussions or mediation. They further note that the village chief should be consulted regarding community graves.

Kanif resident Aloysius Gaan believes there may be a graveyard near Fed'or, north of the existing runway, that could also be affected by the airport expansion. However, he reports no family connection to the site and has no additional information. None of the consultants identified any graves or mortuary areas that would be affected by the proposed seaport project.

HISTORICAL AND ARCHAEOLOGICAL SITES

Consultants identified several historical sites and tourist attractions that could be affected by the proposed projects. Frank Ramngen of Balabat in Rull reports the presence of a recent shipwreck in the channel where the seaport is planned, which has become a tourist attraction. Linda Muut Teteth of Yinuf in Rull identifies several World War II-era sites in the Lamaer and Luweech areas south of Yinuf that attract American and Japanese visitors and which she considers important to Yap's history. She also notes that two historical stone roads near Yinuf and a large mangrove area near the airport, which she considers a historic site, may be impacted.

Terry Leewes of Yinuf describes a house with one wall located at the end of the airport runway, in the middle of the road between Yinuf and Dalipebinaw, which her great-grandmother once spoke about, although she does not recall its historical significance. John Mafel states that a former village was once at the northeast end of the runway and reports that the area is now considered haunted, particularly at night.

Some consultants acknowledge that impacts to historical sites are likely but believe these losses are a necessary tradeoff for the anticipated improvements and benefits the projects will bring. Ms. Leewes, however, expresses concern that the destruction of tourist sites could negatively affect Yap's economy.

TRADITIONAL CULTURAL PRACTICES

James Lukan of Weloy in Rull states that Yapese culture was permanently disrupted during Spanish, German, and Japanese occupations and suggests that many residents are therefore unconcerned about additional impacts.

Leelkan Dabchuran of Balabat in Rull explains that customary fishing rights within the channel still exist, allowing owners to control access and fishing in certain areas, but believes the proposed seaport will disrupt these practices.

Linda Muut Teteth of Yinuf expresses concern that Yapese cultural traditions are gradually being lost and supports efforts to document and preserve them for future generations. While she would like to protect access to portions of the project areas if possible, she accepts that some sacrifices may be necessary to achieve project benefits. Terry Leewes of Yinuf similarly acknowledges that some cultural impacts may be unavoidable but emphasizes the importance of preserving cultural places and practices where feasible.

RELIGIOUS SITES AND PRACTICES

None of the consultants identified any religious sites or practices that would be affected by the proposed projects.

FOOD AND SUBSISTENCE RESOURCES

The consultants broadly believe that grading, dredging, erosion, pollution, noise, increased aircraft traffic, and access restrictions associated with the projects will have significant impacts on food and subsistence resources on Yap. Many base these concerns on personal observations of environmental degradation resulting from previous construction projects. Despite these concerns, many consultants express a willingness to accept some resource loss in exchange for the anticipated economic and technological benefits the projects will bring.

Taro Patches

Jeff Adalbai and John Mafel of Rull state that taro patches within the airport expansion area are unique and cannot be relocated. They note that streams supplying water to these patches are likely to be affected and recommend restricting construction activities to lower elevations to reduce stream contamination.

Linda Muut Teteth reports that few Yap residents actively farm or fish and that she now purchases most of her fish and taro from stores. Although she would like some taro patches preserved, she believes they will eventually be abandoned and that pollution from DoD projects may ultimately render them unusable. She also notes that her family once collected medicinal plants from savannah areas near the airport but is unsure whether these plants are still used today.

Terry Leewes owns taro patches that may be disturbed by the airport expansion but believes she can establish new patches outside the project area with assistance. While she accepts that some resource impacts are necessary to achieve project benefits, she wants to protect actively used taro patches.

Mangroves

Mr. Adalbai and Mr. Mafel state that the mangrove area adjacent to the airport in Rull supports rabbitfish (Siganidae) populations and express concern that sediment runoff from the airport expansion could bury the seagrass used as a fish habitat.

Ms. Teteth emphasizes that mangroves prevent erosion, support medicinal plants, and provide fish breeding habitat. She notes that accumulated trash is already harming mangrove health and fears additional damage from the projects.

Ms. Leewes identifies the large mangrove area near the airport as Galil and agrees that mangroves play a critical role in erosion control, particularly during storms and typhoons. Although she believes Typhoon Sudal in 2004 caused permanent damage to Yap's mangroves, she still advocates for their preservation.

Imports/Exports

Frank Ramngen of Balabat supports increased exports of betel nut and fish to generate additional income for Yap, despite concerns about increased noise and jet emissions. Ms. Leewes worries that additional export flights could deplete local fish, crab, taro, and betel nut resources but hopes increased imports will prevent food and water shortages.

Fishing and Marine Resources

Leelkan Dabchuran reports that several marine resources—including sea urchins known as *yo'oq*, shoreline medicinal plants such as *chen*, sea cucumbers, and mangrove crabs—have already declined due to prior channel disturbances and possible chemical pollution. She does not want the proposed projects to exacerbate these impacts.

Sebastian Flawyoch of Balabat believes dredging to widen the seaport channel will destroy fish trap areas¹ and seagrass habitats. He notes that species such as *atuli* (mackerel) (*Scomber japonicus*) migrate through the area to spawn and believes channel modification will force residents to abandon traditional fishing practices. Despite these concerns, he accepts that some practices need to be abandoned for Yap to modernize.

Aloysius Gaan of Kanif in Dalipebinaw expects government staff to protect fish within Marine Protected Areas (MPA) during project activities. He reports that Kanif still farms sea cucumbers and rabbitfish, though stocks have declined, and notes ongoing education and fish-sharing programs supported by MPA staff.

Robert Ruwan of Ngolog in Rull identifies medicinal shoreline plants such as *thoeth* (*Scaevola taccada*) and notes that *atuli* pass through nearby waters. He also reports the presence of village fish traps and various marine resources, including seaweed, shrimp, shellfish, octopus, and crabs. While he supports preserving traditional fishing practices and protecting nipa palms from erosion, he also acknowledges the need for sacrifice to modernize Yap.

Ms. Teteth reports that MPAs restrict fishing by Yinuf residents, which she believes encourages illegal fishing. She states that few residents fish today and generally do so outside the reef. She would like to protect fishing areas in the planned seaport channel but is unsure how this can be achieved. She also expresses concern that tilapia are overwhelming streams near the airport.

¹ Yapese fish traps and weirs are designed as habitats that segregate fish by size and protect smaller fish from large predators. They do not permanently trap fish populations and allow fish to escape during high tides (Falanruw 1994:17).

Ms. Leewes observes declines in seashells, seaweed, sea urchins, and other marine life, which she attributes to erosion, climate change, and ship pollution. She also reports that coconut crabs are disappearing and may be unsafe to eat due to toxins from terrestrial vines, and that bats consumed by Yapese residents could be displaced by project-related noise.

Erosion

Mr. Ramngen believes sediment runoff from construction will damage streams, marine life, and coral reefs, as well as threaten taro patches and nipa palms. He recommends restricting ground disturbance in higher elevations to limit runoff.

Mr. Flawyoch worries that eroding sediment will damage stream resources and nipa palms but believes erosion control materials could mitigate these effects.

James Lukan of Dugor in Weloy expresses concern about erosion and trash affecting reefs and notes his participation in past runoff-control efforts. He reports that fishing has declined due to ecosystem disturbances but states that *atuli* remains an important food source for Dugor.

Housing Materials

Mr. Adalbai and Mr. Mafel are concerned that nipa palms in Rull used for roof thatching will be destroyed, requiring alternative materials or new sources.

Ms. Leewes reports that mahogany trees used for house construction in Yinuf will be affected, forcing the village to seek materials from other communities. She is less concerned about the loss of other tree species that can be replanted elsewhere.

Aircraft Emissions

Mr. Gaan believes aircraft emissions are damaging breadfruit, betel nut, orange and nipa palms, as well as taro, particularly in Dalipebinaw, Nimgil, and Rull. He recalls that vegetation was healthier in earlier decades.

CULTURAL PROTOCOLS AND STEWARDSHIP

All consultants emphasize the importance of notifying municipal and village chiefs about issues affecting specific villages. Chiefs are responsible for presenting information to communities and making decisions on their behalf, typically after consulting residents. Outsiders should not enter villages or communicate directly with residents without prior notification of the village chief.

Graves are a notable exception: Families must be consulted directly regarding graves they own, while village chiefs oversee community graves or those of unclear ownership. Owners of taro patches must also be consulted if these resources may be disturbed.

Villages and families hold fishing rights in offshore waters and should be consulted if construction or dredging activities could affect access or resources, even when fishing areas are not adjacent to the village.

Leelkan Dabchuran of Balabat notes that consultation processes are sometimes ineffective because many residents do not attend meetings or are not fully informed, resulting in partial community engagement.

Linda Muut Teteth of Yinuf stresses the importance of using maps and photographs when presenting project impacts, noting that many Yap residents are visual learners and may have limited English proficiency. She also expresses concern that land speculation associated with the projects is disrupting traditional inheritance practices in Yinuf and enabling outsiders to assume inappropriate residency privileges.

James Lukan believes his family business, Waab Transportation Company, Inc., should be consulted by the DoD and the Yap State Government about the planned seaport improvements because his company has operated the port for more than 50 years. He also requests clearer explanations from the DoD regarding offshore dredging locations and environmental impacts.

IV. RECOMMENDATIONS

The responses provided by the cultural consultants from Rull, Dalipebinaw, and Weloy municipalities who evaluated the proposed MILCON projects emphasize the following concerns.

BURIAL SITES AND GRAVES

The potential disturbance or relocation of graves is identified as the most sensitive cultural issue associated with the projects. While the proposed seaport project is considered unlikely to impact graves, the airport extension is expected to disturb a large cemetery known as Dakaen ei Dakey at the eastern end of the existing runway. This cemetery contains graves of many relatives of Yinuf residents. Consultants from Yinuf express strong opposition to disturbing these graves and advocate for their protection in place.

TERRESTRIAL AND MARINE RESOURCES

The consultants widely anticipate that ground-disturbing activities associated with construction—including dredging and sediment erosion—could severely damage terrestrial vegetation, freshwater streams, and offshore marine and mangrove ecosystems if not adequately mitigated. Many consultants recall similar environmental degradation during previous construction projects on Yap and express a strong desire to avoid repeating those impacts.

Several consultants also express mixed and sometimes conflicting views regarding the natural resources in the project areas. Many believe that marine resources—such as fish, seagrass, sea cucumbers, and reefs—are likely to be damaged by the seaport project, but some acknowledge that resources within the seaport channel are already in decline and no longer economically significant. Taro patches within the airport expansion project area are generally valued, but several consultants note that many have been abandoned due to lack of interest or limited access to fresh water. Traditional medicinal plants are also present in both project areas, but there is no consensus on how frequently they are still collected or used.

NIPA PALMS AND MAHOGANY

Nipa palms and mahogany trees, which are widely used in Yap for housing construction, are expected to be significantly affected by the airport extension project. Yinuf residents anticipate that the loss of mahogany may require them to seek resources from other villages in the future, while representatives from Rull note that the loss of nipa palms would disproportionately affect poorer residents who rely on its leaves for roof thatching.

ECONOMIC BENEFITS

Many consultants look forward to project benefits such as improved access to imported goods, increased export opportunities, income from leasing private lands to the DoD, job and educational opportunities, infrastructure upgrades, and increased commercial activity from a larger local workforce. While some consultants believe that certain traditional practices and resources may need to be sacrificed to achieve these benefits, others emphasize the importance of balancing modernization with cultural continuity.

RISKS TO CULTURAL CONTINUITY AND SOCIAL COHESION

Consultants caution that economic development and technological change associated with the projects may produce unintended disruptions to existing cultural, political, and economic relationships on Yap, even if the projects are implemented with broad agreement. For example, a Yinuf consultant reports that recent purchases of village land by outsiders seeking to lease property to the DoD have fostered resentment within Yinuf, disenfranchised hereditary residents, and generated community tension.

Additionally, restrictions on traditional fishing and farming areas—and their potential destruction—may irreversibly affect customary rights and practices, particularly if future development continues to erode traditional land and marine tenure systems. Some consultants warn that extreme taboos, such as disturbing and relocating graves, could undermine foundational cultural principles with long-term consequences for Yapese cultural identity.

MITIGATION OPTIONS

Based on these concerns, the following mitigation options are recommended for consideration during project planning:

1. Proper Yapese protocols must be followed when consulting with local communities about the potential impacts of the proposed projects. In nearly all circumstances, the municipal chief and the village chief overseeing the areas of potential impact must be informed first. It is then the prerogative of the village chief to present project-related issues to village residents. Outsiders should not enter villages or communicate directly with residents without prior notification and approval from the village chief. While the municipal and village chiefs generally make project-related decisions on behalf of their communities, they almost always consult with community members before reaching those decisions.
2. Consultants stress that if graves are likely to be disturbed, the owners—typically family members—must be notified immediately and included in all subsequent discussions regarding their disposition. The village chief has authority over community graves and graves of unknown ownership. For the cemetery at the east end of the airport runway in Rull, suggested mitigation measures include designating portions of the cemetery as airport safety zones and enclosing them with protective fencing. If relocation is unavoidable, consultants expect financial and logistical support from the DoD and/or the Yap State Government.
3. Private property owners, including those with taro patches or other resources, must be notified directly if their property may be affected.
4. To protect terrestrial and marine resources, limit construction at higher elevations and employ engineering controls to reduce sediment runoff, replant culturally and economically important plants in environmentally suitable locations outside project areas and provide financial compensation or substitute resources to offset resource losses experienced by local residents.
5. Replace nipa palms destroyed during construction by replanting in other swampy areas where it may thrive.

6. All mahogany impacted by the project should be kept for community use and replanted in consultation with the Yap State Department of Agriculture and
7. If natural and cultural resources will be unavoidably impacted by the projects, affected Yapese people should be offered compensatory economic benefits that are substantial, fairly distributed, and negotiated with the affected parties.
8. Consultants emphasize the importance of preserving cultural places, resources, and values within the project areas wherever possible. Such measures are viewed as essential to maintaining cultural continuity and mitigating the risk of long-term cultural erosion as Yap adapts to the opportunities and challenges presented by the proposed projects.

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GLOSSARY OF YAPESE WORDS

Yapese Spelling	Definition
atuli	mackerel; species not confirmed
betel nut	fruit of the areca palm (<i>Areca catechu</i>); chewed as a stimulant throughout south and southeast Asia, Micronesia, and Melanesia
chen	a medicinal plant; species not known
daef	stone platform containing the main residence of the <i>tabinaw</i> chief
nipa	<i>Nypa fruticans</i> ; also known as a nipa palm or mangrove palm
pilung	landed class with high social ranking
pimilngay	landless class with low social ranking
rai	a type of stone money; also known as <i>raay</i>
tabinaw	a traditional family unit and its customary estate
thoeth	<i>Scaevola taccada</i> ; a medicinal plant; also known as beach cabbage or sea lettuce
wunbey	a stone house platform
yo'oq	an edible sea urchin; species not known

APPENDIX A: CONSULTANT CONSENT FORMS

APPENDIX B: CONSULTANT TRANSCRIPTS

ORAL HISTORY INTERVIEW

With

Mayor Jeffery Adalbai [JA] and Senator John Mafel [JM]

October 27, 2025

Yinuf Rull, Yap Island, Federated States of Micronesia

By

Matthew F. Napolitano [MFN]

And

Hannah Kaumakamanōkalanipō Anae [HKA]

Recording file name: <IA202449_Mayor Jeffery Adalbai and Senator John Mafel>

The interview took place indoors at Pine Restaurant, Yap Island, Federated States of Micronesia.

MFN: You mentioned earlier about the taro patches; floating taro patches and the story associated with the impact of every source of food because it's all coming from the community within the areas where the impacts are?

JA: I like to mention in regard to taro patches, the other night a group came, and they wanted to see the floating taro patch. We brought them to the taro patch area, and they wanted to see some taro leaves; they looked and said, "Where's the taro patch?" "What taro patch are you talking about?" And in my mind, I was wondering why ask that question, whether you see a taro or not that's a taro patch. If we don't do it this time the ladies leave it to sit for a while, but they will go back to clean it up. If it's not used, that doesn't mean we don't use them anymore, it means that it's just a designated area as a taro patch. Going back to the floating taro patch, that's a unique location only in that area for the island, all the roots of that kind of plant are in there as grown to call it some roots together with some floating structure. And so, that ladies use that and the taro came out really good compare to the ones that are swampy. So, once in a while people go and plant some of the best taro so that is something unique to the island and only that place has it, but if it's built and done right.

MFN: And that is a total loss 'cause you cannot move it to another place.

JA: That is impossible, you cannot move the taro patch.

JM: Interesting enough, I went on YouTube and watched a floating taro patch and it in other places turned out not to be an original one.

MFN: Can you think of other materials that come from those areas like we discuss in the mangroves out there too? What are some particular sea grass beds or particular fiber for a certain kind of fishing net? Can you think of other things in the area that can be impacted if they are lost?

JA: The largest mangrove area of Yap is just by the airport. Outside of that mangrove is where you can find huge rabbit fish. This side of the island is known by their volume of rabbit fish. When they built the airport there were some impacts and I think they still face some now that have changed dynamically in many ways right now. Bringing in this project, if not done right it's going to impact again; probably will diminish whatever we have in the area. So, those are some of the worries that we have. Talking about, I know there's a lot of fish there which ... I learned from some scientists when they came to study the water [there is a] variety of sea grass in the water, [and] fish depend on those seagrasses. If silt comes up and covers those areas, it [will] definitely take away the food from the fish. So, I cannot provide you [with] some kind of scientific answer but beyond that. And from a kid from that village, I've seen what [it] was then, and now there's a huge impact. Understanding a little bit of feedback, if things are not done right, then definitely, it will make it — worse even though when you dive the place you see a group of coral there. When things are not right, it will [have an] effect in every way. So it goes back to the question, how do we mitigate those things?

MFN: Right, in your course lifetime growing up do you remember small scale events where silt comes in from either storm or something but then it recovers because it's manageable.

JA: Yeah, in fact from a normal daily basis, yes of course, the water is filtered through old Critic filter. [In] between it gets down so there is a proper filter, I could say so. If you try to move the land of course, it's going to be a lot. So, before moving the airport there was a lot of impact in the state having the resource in pinning down some of those things so that it was kind of related because of development. Some of those things now that we're kind of getting to the similar way. How do we

make sure that doesn't happen? And if it does, how do we deal with it because the first one heard us in a big way. How do we mitigate that for this time?

MFN: Sounds similar to what you mentioned before to the tendering growing up. I've heard also with the changing climate that some of the fruiting season for the tree is unpredictable

JM: Yeah, climate change, global warming you know being off island for quite a bit coming back home I was surprised to get mosquitoes in some areas on the island where there weren't mosquitoes before. Warming is changing the habitat to further away from [the] shoreline — now like the whole island has mosquitoes. But at some point, it was possible that you wouldn't expect mosquito bites; but I think the world ... everything changes. You said the *atule* (big-eyed goggle-eyed scad or type of scad [*Selar crumenophthalmus*, *Trachurops crumenophthalmus*]) right, for us here this day here I remember I think I was able to cut through. We came back from church on Sunday. We saw the oh that *atule*, so we cut it, and it was two brown cooler of that stuff coming into the bay.

HKA: You guys surrounded it?

JM: No, because it has to come inland and go back at low tide, so we cut it across the bay with connecting nets across and they have to come back.

MFN: The mangroves and ah I forgot the name of the thatching leafs you use for the *fa'luw* (traditional and significant cultural structure).

JM: Nipa (native palm [*Nypa fruitcans*]).

MFN: Nipa yeah, is that also replaceable in the sense that one community is not able to get for their own community structure and that will take negotiation with others or?

JA: There are families that depend on that because they cannot afford their own tin roofs so they build their house locally and use nipa but the fact is if those places with all those plants are filled up it would kill it. We have a few places that have that plant like in the south side like Yinuf side and Luerch.

JM: Yeah, that kind of almost swampy [area] where it's good for growing nipa, some part of the island like up north Gagil. [If] they don't have nipa they have to [go to] this places to ask if they have for thatching leaves or they just use the coconut leaves which it doesn't last long.

MFN: And so again returning to the idea the best way to mitigate that through is fund available either to replace or purchase having a way protecting knowledge or?

JA: Like I said when we sat down and talked about this with some elders, how do we mitigate that? So, we set some location to do some of those areas. Of course, when it [was] done it became somebody's ownage. So, maybe the best way is to put some signs funding, plus some kind [of] trust fund that helps us [to] give ideas on how we should [utilize] any process to [help] us to grow this in different ways. If [it] effects anybody, there's some kind of fund to help if the people in the community can't afford to get those or if it diminishes, we have the fund that we can say, okay now here is the fund that can help fund your roofing, or your municipality, or even the men's house where it needs that to funded, the men's house to put in a different way instead of using thatch nipa, we can maybe use some kind of artificial leaves that looks like nipa to put on your roof. I saw one that was structurally local.

MFN: Fresh water too, we talked about mangrove by the ocean. Are there streams in those areas where there's important materials or foods?

JA: In those areas, there are streams just up land by the airport that flow into the mangroves. I don't think there's any streams that people benefit from like drinking water other than that taro patches. So maybe not streams depending on water catchment or necessarily water to drink, but only for taro patches that flow to the mangroves.

JM: There's really no answer and we follow it. But I will start off with our strategic plan group, with the national due to the compact with the United State [who] requires us to have an SDP (Strategic Development Plan) in place. The annual implementational plan fits in under the SDP and when we were sitting down talking about all this stuff and we look at environment portion everything is so high up and we look at development part its low and a lot of people are like the margin design are part of the SDP and they were yeah we want this to stay high what about the development part to be high as well they have this recognition this two to go hand in hand which the further side develop

economically impacted but to what level are we comfortable with? Can we accept that this will have some impacts here? How can we balance that to what level we are ready to wide eye ? We can accept this level of impact to the environment as long as we get this but beyond this is the ceiling we can not go beyond this. Those are the conversation I don't know if people thought about it all to the end to where we actually have, we can continue to have the higher one in the environment area as long this ones stay down but at the same time we need to recognize we need this we would like to have that so what are we comfortable with?

JA: Like for instance, we want development. We understand all the impact but that is the given thing. We sacrifice all this to have that because we would want to have that because we would never have this kind of funding when it comes to the island because sometimes we think about sacrificing and getting something that it's once in a lifetime but again where's the light that we make sure we dot over this land.

MFN: It sounds like everybody needs to be flexible on this from the US side and Yap side because it's not one side solution. I think there are a couple more questions about tradition and cultural things. We would like to record if there is any area that is going to be filled in, for example the fence line at the airport we were there talking about leveling out, are there stories that are connected to that place?

JA: The story that I just mentioned earlier that's a long story but there's a basket of rope going to heaven that people go into that basket and pull up with magnesium. I don't know the whole story but at some point in time maybe Yalfath says I get enough of you.

JM: These guys ruined it, that's why we don't have that living access to heaven anymore.

JA: Maybe you need to get to that place and get some photos

MFN: Is that where the floating taro patch is?

- JA: No, no, the floating taro patch is toward the northern side where they want the LSA (Losuia Airport). That's the only story I would know other than the grave yards areas that goes back to the days where certain locations that each village used for burial sites.
- JM: The sea bee flat where they proposed for the structure at the northeast end of the runway, there's a story of a village there but there is nobody there anymore, they [do not] enjoy presence there. Sometimes at night, I'm pretty sure when people start working there, they will notice things.
- JA: By the way when they were doing the new airport I used to go with my uncle he was in charge of all the security point as a local person he brings us kids you know we want to look at those big bull dodger and all that stuff and in the evening we want to spend the night there and sometimes in the night he would wake us up and said look at that, the runway has fire glowing by one side to the other side. When you get a fire and you run it you will see all these ambers just a ball of fire moving. I guess those are the result of disturbance from the property.
- JM: Yeah, we know. We accept that we live in this but we accept that it's part of our culture and beliefs but maybe we can explain scientifically not only areas are filled with that.
- MFN: Because you mention the graves, can I ask you a couple questions about that? There are graves that are in the impact area, we would like to know how that can be or what is the best way to handle that? Should that be relocated? What is the best way to mitigate it, because it is something that should be mitigated, should that be done by the community? Are there associations to those places?
- JA: Let me bring us back to the original relocation to the new airport. The government decided that old graves in the airport boundaries should be compensated and moved to a certain location. Some remains are moved and brought to land resources for safe keeping until it is decided where to be buried. I believe that it's still sitting there and nothing is being done with them. At some point that they are kept within the property line the lady that has a relationship with graves goes within each family. She said that land resources got them for relocation, but they never got a chance to do that at some point. So, in order for that to move, it [has] got to involve some kind of monitoring involvement in moving the grave and relocating to whatever place, so we go to each family. That's the only grave that I know for going outside. I do not know what others are outside from this side

where I'm from. I understand, [that] is what has been discussed. There's nothing on the north side of the project. That's my understanding.

MFN: Sorry just to understand this, so there's no graves outside?

JA: If there are any like for Fedoor side I'm not sure if that's part of Rull but there's a boundary there, boundary for Dalipebinaw and Rull we want to work with the chiefs of those areas to determine. I know there's a couple of places involved in getting more properties. I'm not sure if there's any grave in that area, but I understand near to those area there are graves, but that point I'm not sure.

MFN: If they are there inside the impact zone then that would come down to the family?

JA: So for this DOD project the task force and the representative from the task force to the council of Pilung will go into that to the community, the chief level and they will say that this is the interest, how do we deal with this? So, it goes back to how we deal with that. Once we clear out all arrangements then we deal with the family.

JM: And I don't know if those were done before when we all became Christians or even before we became all Christians as far as proper rights need to be moved or relocated.

MFN: I think it won't be known until things go through that path to talk with the community, but I guess the question is, we want to treat that respectfully as possible, to do what we can with honor to them, so is that something for guidance, to honor the community? If there's construction happening and there's an inadvertent discovery that includes a transitional platform, stones paths and stuff, what is the best way to handle that? From our perspective there's cultural monitoring. If they see something, we'll stop work immediately and notify the task force or the HPO, beyond that once work is stopped, what's the best way to handle that?

JA: We never think going that far we never think going that path for something like that, but really if they find a grave or an ancient path then how do we relocate an ancient path from the runway? Is the path being used? I think it goes back down to the chiefs for what they want us to do. Should we relocate this, or what should we do if we have permission to remove all this? It would be really nice

to identify all this. We wouldn't want one rock to stop the project from moving forward. It would be safe to survey the place like now to know what's in there if it's affecting historical sites, what needs to be moved?

MFN: Do you know any taboo place or sacred places that people should not be entering into?

JM: In the area that is proposed?

MFN: Yeah.

JM: If there was all this work that is done in the airport probably it has [been] destroyed ... all that already.

JA: Especially in Yap there is graveyard for people and graveyard for *Samuns* (a reference to names that carry cultural significance and familial importance) where their head is buried above ground, the graveyards for the chiefs. And I guess what the airport has affected, I think most of that is taken care of, we don't know, but we'll find out soon.

MFN: You said that the *Samuns* are buried with their heads above the ground?

JM: Yes

HKA: Is there any taboo like moving rocks?

JM: There [are] places in Yap that even trees you want to use for building houses you can not even use by moving to another property or you bring something to your home and you will be disturbed at night and they will tell you, you have to return this coconut shell.

JM: But as far as that area I think everything is taken care of before.

MFN: Are there different cycles of the year used that we should consider for construction for areas for example, like for the ship coming in here and for a time it has to open on one side.

JA: I can't think of any but maybe only taro patches like there is a time to plant taro and time to harvest, but in that place otherwise we can't think of any.

MFN: Yeah, if that's the time of the year then it would be exercised in all other considerations. The last question would be about an outsider visiting or coming in to work in this area. Are there things to keep in mind like visitors carrying a branch or something like that. What is a respectful way to show people ?

JM: I used to teach at the high school there's a lot of *xpatch* [educators from abroad] that come in, we would see a little cultural norm of violation. So, I had to come up with a little SOP (Standard Operating Procedure) to kind of brief those coming from the Philippines or the United States just [about] little things like you're coming out from a community, and I talked to Kyle. S the guys who has been here, and maybe somebody took them up to the north beaches and later on they thought they could just come on their own, and that all that beach owned by somebody next to each other but you can't see boundary lines, but if they go beyond the paved road some guy could get them but that's always inappropriate. And things like if you go beyond the paved road and you want to take some pictures, ask somebody before, so that it's okay. Things like Josephine here with her hair, our woman here usually have their hair in a bun on the left side, the bun is a sign that this lady is still a miss if [the bun] is to the back, not the side that's for the warriors, little things like that. Peoples baskets stepping over is not okay. Most Yapese I think are leftovers from the old days. If there's a loud noise back here totally the men would jump toward the sound. I've never been in a tribal war but somehow it's still part of who we are so things like that people wouldn't just go behind somebody and do that. Touching people's head is culturally all over the world not appropriate little things I can think of at the top [of my head].

JA: So designated area from the airport but stepping in the village they need to leave the village and make sure they just dint groom around its disrespectful for people in the community to see them around and let them know why you're here even if you mean by your good by yourself.

JM: And most of the time like I said if you come through and you're an outsider they won't come to you but they will go through their route to their chief to the DOD (Department of Defense) to know why these guys are here and what are they doing here. That's a different story but if they were not they would take a different route and talk to somebody.

JA: Unless you help people, [they] will help you.

MFN: I guess that touches a lot upon the questions. I appreciate the time you have taken up on the holiday to meet with us, so Thank you very much!

JM: And I apologize as you can tell with all the calls and stuff.

MFN: We are thankful for the time.

JA: We are happy to help with all the information that we have.

JM: Thank you!

ORAL HISTORY INTERVIEW

With

Leelkan Dabchuran [LD]

October 28, 2025

Yap State Archive Office, Yap Island, Federated States of Micronesia [FSM]

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Sarphina Gudiiy [SG]

Recording file name: <IA202449_Leelkan Dabchuran_SG_2025-10-27.wav>

The interview took place indoors at the Yap State Archive Office, Yap Island, Federated States of Micronesia. The recording has one part.

HKA: Greetings. Today is October 28th, 2025. I am Hannah Kaumakamanōkalanipō Anae beside me is Sarphina Gudiiy and she is our field assistant and translator. We are on the main island of Yap, one of the Federated States of Micronesia. I would like to say, I represent International Archaeology, LLC. Our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with Leelkan, and can you please state your full name.

LD: Leelkan Dabchuran

HKA: Do I have your permission to record this interview?

LD: Yes, you do

HKA: Thank you!

HKA: The interview encompasses a series of questions, and I want to excuse myself in advance if I seem nosy or brazen, it is not my intention, but just for the purpose of this interview to help us identify

or understand the potential impacts to cultural practices and economy as a result of the proposed project. The information you provide will be used to help develop possible mitigation measures to offset the impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview.

HKA: I would like to ask you, what village do you come from?

LD: I live in Balabat, Rull

HKA: Is it close to the seaport area or the channel?

LD: Yes, a little bit, yes

HKA: Now let me get into the topics I mentioned earlier. Okay, so economy is the first one. Would the proposed project impact sources of income on individuals or families, groups including and post construction? Example, the betelnut runners, if the United Airlines Cargo flight changes for another night would that impact economic resources for the betelnut runners?

LD: For my community, I really cannot speak from that because I'm not involved in that at all.

HKA: That's just an example, but if there is anything that will impact the people?

LD: In connection with airline schedule, I'm trying to understand the question.

HKA: The airline schedule or any income for individuals, families or community groups, would that be a problem within the community with any of those. Not just airline flights, but also during the project or after?

LD: I don't know, all that I can comment on is especially for the channel I know that my village they have fishing grounds right next to, in fact, not only on one side in front from our village but also on the other side they call it Tamil Channel. But actually, it's not Tamil Channel, it belongs to our

village and so the fishing rights are on the eastern side of the channel those will definitely be affected, I think. I'm not a marine biologist and I don't fish but the fishing rights around those areas are not just one type of fishing right, but each estate in the village or in the surrounding communities. Each of them has their own fishing rights and so any disturbance in the area will affect those fishing rights and so in that way I would assume that their ability to be economical.

HKA: Do those people sell fish and also eat fish?

LD: Yes, mainly concerning consumption but also selling fish. In fact, there is a type of shell or urchin that lives in the mangrove area. We don't have them anymore. Every time the channel is disturbed, they slowly go away and right now we don't have them anymore. Those are along the coast. Chungal is the local name and (*yo' oq*) sea urchin.

HKA: That's the spiny one?

LD: No, this is a different kind. This lives in the mangrove or the roots of the mangrove trees. So, to me that would be the most direct thing I can see now. I think I have heard from some of the guys in the village that the fishing ground does not have that much impact.

HKA: What was the cause of the impact of the mangrove right now?

LD: I really don't know. I can only assume that it's from the chemical things spilling into the water not necessarily intended but with all the big boats coming in and going out differently there will be visuals.

HKA: Are there tourist sites that will be impacted by the construction? Dive sites, WW2 sites, mangrove, swamp and fruit bat habitat?

LD: I don't know, maybe I would assume so. Fruit bats that yeah, some of them live in the mangrove area, yeah, they could be affected in that aspect too.

HKA: Can you identify any economic disadvantage because of the project?

LD: More ships coming into Yap, whether or not everybody can afford what the ship brings.

HKA: What about historical or archaeological things such as traditional places such as, like *wunbey*, the stone platform, the *ra'ay* (stone money, known also as *rai*), men's houses or *faluw*, *pebaey* (woman's house), canoe houses, *daf* (house foundation), *tabinaw* (men's estate), WW2 sites, roads, trails, transportation also is important to the community?

LD: That'll be affected by that?

HKA: Yeah.

LD: Probably some of the historical sites in the south because of the extension of the runway or whatever the improvement of the airport and the channel ... probably can't do that on land.

HKA: But at the airport.

LD: Yeah, I think so. There may be burial sites and taro patches, you know areas for traditional gardening and all that. Those will definitely be affected. I don't know about soil in Yap but to me it's not that great, we have small garden plots. But if we don't take care of it the right way it's very hard for the plants to grow and so to all the disturbance. I can imagine the frequent landing and taking off of the airplanes that will definitely be a cause of some disturbance that might be an effect.

HKA: So, you just told me about plants and that's what we are going to be moving into, food and substances resources so that is one of the questions. Are there medicinal plants or resources in the project area, and is there plant unique to the project construction area including down streams and surrounding area if it is acceptable to share would you identify them?

LD: I really cannot speak to that, I can assume so.

SG: Trees by the shore are rare and used for local medicine.

LD: There used to be certain trees along the water line. We may not have all of those now and they may not be at all when there's disturbance in the water. Yes, there are medicinal plants.

HKA: Do you have any names for the medicinal plants?

LD: I'm not sure if I can name them but I know one is *chen* (Chenille plant [*Acalypha hispida*]).

LD: Do you know what *chen*?

SG: Is it a vine plant?

LD: No, it's a tree.

HKA: Does it have fruit on it?

LD: Either the leaves or the bark is used for medicine and the *keal* (peanut tree). I'm not sure what you call it.

HKA: Is it the one that has white berries?

SG: That is what she's describing.

LD: But the leaves are almost the same. They turn red and start to fall down. I know there's a lot in Hawai'i.

SG: There's a fruit from it, a small size that has a small nut inside and that's what you eat from it.

LD: It's almost like a walnut.

HKA: Will figure it out, we have a book of plants and will look over it.

LD: I don't know about local medicine.

HKA: How about the mangrove. Do you know if it's being used as a medical plant?

LD: I think some people do, but I really cannot speak to that.

HKA: Okay.

HKA: You mention along the coastline, are there fisheries, or where fish comes and hangout, fish ponds, reef areas and mangroves and grounds that are culturally significant? And how often are these areas visited? How can people continue traditional practices in these areas if these areas are impacted or otherwise inaccessible?

LD: I'm sure there is, I just don't know any specific area, but I can say that there is a type of fishing practice and I don't know people are doing that now but that doesn't mean they don't have fishing rights. Disturbing the channel might affect those things.

HKA: Yeah, would you know what kind of fish, octopus, crab, marine shellfish, seaweed, sea cucumber, and other marine resources can be found along the shores of the project area?

LD: Probably all of that. We don't have that many seacucumber, very few now and the mangrove crabs there are not many.

HKA: How should traditional fishing gathering practice's locations be protected and knowledge associated with them preserved? Is it possible to map these areas as a mitigation measure? How should we preserve these practices, the stories, how do you suggest we preserve those?

LD: Don't disturb the marine areas.

HKA: Are there effects for small water streams that flow down into the project areas from land?

SG: Taro patches water streams.

LD: Yes.

HKA: What type of natural resources are in these waters, these streams?

LD: We have these small streams from taro patches moving into the ocean and the resources there. The plants, when its high tide water moves into the taro patches and the water has been disturbed to a certain level—it's not good for the taro plants and so other regular streams are not in my village, maybe further south only one in Dachngar.

HKA: Are there sources of raw materials like sea weeds that are used to make specific kinds of fishing nets that are unique to the area and are only available to some community members that are threatened by the proposed construction?

LD: I don't know.

HKA: Now we are moving to religious sites, are there church's shrine or ritual area that could be affected by the project area on the activities?

LD: Maybe the airport for the southern part, I would imagine, yeah.

HKA: The noises?

LD: Yes

HKA: The construction activities and after construction?

LD: Definitely, yes.

HKA: We are moving into traditional cultural practices. Are there cultural places tied to myths or traditions like stories or community identity that need recognition? In the project area, anywhere near are there traditional stories?

LD: There are but I don't know.

HKA: Are there any taboo area places restricted by clan lineage or gender people shouldn't just go to?

LD: You just don't do that even in the water.

HKA: You need permission?

LD: Yes

HKA: Who is the appropriate custodian or spokesperson for each site?

LD: For each site? Maybe, no comment on that.

HKA: Okay, that's fine.

HKA: Within your lifetime, have you seen changes in the mangrove you think are related to development, climate change or other causes what effect did you or did have on the ocean fresh water or other plants and animals like the corals, crabs, sea foods, sea weeds, sea cucumbers, snails and or bats. We kind of spoke about that.

LD: All of that has been affected not only by all the economic development but also by climate change.

HKA: Have you noticed the changes in how the mangroves filter runs off or protects the land during stormy season?

LD: Okay, I'm not sure if I understand the question.

HKA: I know you guys had a typhoon several years ago, how was the mangrove affected by that?

LD: They protect the land.

HKA: Right.

LD: Yes, they do and with all the movement in the water it's bad for the mangrove trees.

HKA: And are mangrove trees vital for protecting the land during storms?

LD: Yes

HKA: I notice there are a lot of *nunuuw* (leis or garlands), have you seen the people using the mangrove flowers for *nunuuw*?

LD: No

HKA: So, the next set of questions is going to the graves and mortuaries areas. Are there known graves traditional and modern within or near the project area that you stated?

LD: Probably the airport.

HKA: How do you think we should identify and mark them for protection? You're going to refer to the people they belong to, right?

LD: Yes, you know in our culture it is taboo to disturb burial areas.

HKA: Now I'm going to let you talk about your input or what you want to say.

LD: Thank you! I do support economic development, yes, but I think the proposed development project will have a great impact on our lives. We don't have that much land, and we depend on resources

from the ocean to survive and especially for the surrounding communities. Talking about the channel. The slight disturbance to the marine areas has a bruising effect on what we find in our coastal water to eat, and we are experiencing that now with several oil spillages in the past and we are still experiencing the effect on those. There are taro patches that still cannot grow taro now. For the channel, I'm sorry but I cannot say anything in favor of that project, to me, it's just too adverse to our livelihood. It's just too much.

HKA: And that I thank you!

LD: My family especially, they have fishing right by the channel in front of our village that is going to be dredged away.

SG: Can you tell us about the fishing rights for your family?

LD: Fishing ground for Taflang family is right by the channel.

LD: And everyone is gone, and my son lives in New York and he never had a chance to practice. There are people in the village that well, I know, people have been fishing around that area, and they know that it belongs to the family that is going to be dredged away. So, it's very hard for me to support the project but although economic development is good, the extent should be sacrificed.

HKA: I'm here to listen to both sides. In fact, I would like to hear your point of view about what you people are against also for the projects. That's another view that we should analyze and take into account. Kamagar for that!

LD: I understand that our agreement ... and the things that are required or necessary or maybe preferred we don't have that much natural resources.

HKA: I understand that because I live on an island.

LD: Yeah, and our island is much smaller. Every time the ships come into the coastal area in front of my house or right below my house, we can see chemicals in the water. When it's calm and we look

at the water you can see oily stuff on the water. I think all of that is slowly killing everything along the coastline. So, imagine dredging and even more ships coming in, our village will be eliminated. There is about three men's houses, Ayan, Balabat, Lothog and Misgow, four men's houses by the coastline in our village. With all the threatening everything more will just add. I might be too negative about that.

HKA: No, we need all that information.

LD: The thing is it's ironic that our system goes out to HPO to preserve the historical sites and cultural sites and all of that, yet what we are actually doing on a daily basis may not be consistent with preserving—our island is so small, and our culture is to preserve. Every little thing we do is to survive and prepare for the next person. Even when you go to the taro patch you just don't take the plant, you have to replace it. Though if we stop doing all of that then we don't have a place to live. I'm really curious and interested to know the HPO position on this project.

HKA: How would you like the information on the project all of this to be delivered or shared?

LD: That's a very good question in Yap we are not people that we gather together and listen to somebody's presentation or speech so this information sharing. Almost man exists in Yap so when we get all this report, the leadership consults the people in the community, there were meetings here and there people supported this and that. It's not always hundred percent accurate because people in Yap don't go out and listen to everybody there are representative in the community that should go and talk to the people so all this consultation [takes] place with the leadership, and supposedly the people are informed in fact I would be pleasantly surprised if some of the representatives have actually gone to their village and talk with their people from house to house explaining the impact of this proposed project. I would be pleasantly surprised if five out of ten were consulted. That's the saddest part so I'm not sure if I'm helping you out with the interview.

HKA: You are totally helping.

LD: I know for a fact when the community is consulted just for a couple of people, those that just listen don't fully understand the impact. I think some people are still trying to understand climate change

here in Yap. Luckily, we have an understanding of what climate change is all about in our own way when we deal with the gardens and plants in general but when people are consulted like they say in the report.

HKA: Will be in touch with you, Sarphina will be in touch with you.

LD: I really appreciated this.

HKA: I appreciated it too. You were very helpful and I'm going to end this right here and I thank you so much!

ORAL HISTORY INTERVIEW

With Sebastian Flawyoch [SF]

October 26, 2025

Talguw Rull, Yap Island, Federated States of Micronesia

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Sarphina Gudiiy [SG]

Recording file name: <IA202449_Terry Leewes_SG_2025-10-26.wav>

The interview took place outdoors in Talguw, Rull, Yap Island, Federated States of Micronesia [FSM].

SG was the translator for this interview.

HKA: Greetings. Today is October 26th, 2025. I am Hannah Kaumakamanōkalanipō Anae beside me is Sarphina Gudiiy and she is our field assistant and translator. We are on the main island of Yap, one of the Federated States of Micronesia. I would like to say, I represent International Archaeology, LLC. Our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with Sebastian and can you please state your full name.

SF: Sebastian Theodore Flawyoch.

HKA: Do I have your permission to record this interview?

SF: Of course.

HKA: The interview encompasses a series of questions, and I want to excuse myself in advance if I seem nosy or brazen, it is not my intention, but just for the purpose of this interview to help us understand the potential impacts to cultural practices and economy as a result of the proposed project. The

information you provide will be used to help develop possible mitigation measures to offset the impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview.

HKA: I would like to ask you, what village do you come from, and your proximity to the airport, seaport or project area?

SF: I'm from Balabat, Rull and something about how far from the airport you said?

HKA: How close is the airport here?

SF: The sea port is much closer here than the airport but in the same municipality.

HKA: What is your role in the village?

SF: Just a fellow citizen in the village

HKA: And so, do fish and farms?

SF: Yes, we farm and, actually, we do own land and taro patches from our ancestors' inheritance though we don't farm but we have our land that we get our resources from.

HKA: The questions are organized into seven topics, which may have a degree of overlap. So please bear with me. The first series of questions pertain to economy. Will the proposed projects impact sources of income for individuals, families, or community groups (including during and post-construction)? One example is betel nut runners. If the United Airlines cargo flight changes to another night, will that impact on economic resources?

SF: It would be good if more flights are coming in and going out because commercial flight prices can go down but for exporting maybe it's not good because we might run out of betelnut from all the

exporting due to the increase of flights. Just now with two flights we face a problem when it's the dry season we run out of betelnut.

HKA: Are there tourist sites that will be impacted by construction (e.g., dive sites, WWII sites, mangrove, swamps, fruit bat habitats)?

SF: This change that's going to take place on the island is going to affect everything resources that we have, especially with the resources that we have. I'm only speaking on my behalf, not for everyone else.

HKA: Yes, I totally understand. Can you identify any economic advantages that might happen because of the projects?

SF: What do you mean by economic advantage?

HKA: Is there anything good that will happen?

SF: Of course there would be a lot of money coming in. Local resources could be ruined by the projects at the airport and the seaport so whatever is in the water hopefully the money flowing in people can make a living much easier.

HKA: Next is cultural protocol and stewardship. Who are the traditional leaders or custodians responsible for cultural sites in this area?

SF: Actually, the chief, though the water is divided among the community members, it is usually the chiefs who makes the decision on everybody's behalf. Each person own whatever they have in the water its truly complicated to go through all the property channels to get all the true authority in the water because it's kind of come from individual people and the chiefs but then this will be settled because we are all aware of what going to take place now because it's written in the compact before we involve ourself.

HKA: I'm here to help get your input to find ways to mitigate these issues.

HKA: What is the proper protocol for visiting or working near these places? How can outsiders or visitors to Yap act in a way that demonstrates respect for these places?

SF: We own the land but things like this have to be through the government first then the chiefs in the village then the landowners.

HKA: How should findings (photographs, maps, reports) be shared with the community?

SF: If we would have things like this, there would be a community meeting to discuss the input to have a good solution.

HKA: Will changes in the viewshed impact cultural practices (from land and from the water)? For example, if a hill was taken down when you look at it will it be a bother to people?

SF: Of course, but if it's a must though it may impact people then we have to let go because things have to go on.

HKA: We seek community guidance on how to minimize the impact. Who would decide that, is it by a men's group or a women's group.

SF: The men and the landowners because the men in the community usually are the one that make the decisions.

HKA: Do you have any recommendations regarding site management or protection and development in these areas?

SF: I don't have anything to say against the project that's taking place, but I hope that it can be minimized and save the sources though it may not cause the project that will be taking place like the seaport opening the channel wider and it's going to destroy the corals and also the fish going.

HKA: What historic or archaeological places (e.g., *wunbey* [stone platforms], *rai* [stone currency], *fa'luw* [men's houses] *p'ebay* [canoe houses], *def* [platform for the estate head's house], *tabinaw* [land estates], World War II (WWII) sites, roads, trails, and transportation routes are important to the community?

SF: The seaport project won't affect anything on; and mainly the things in the water.

HKA: Which areas are important for taro patches or traditional gardens? Can the patches be relocated if they were to be relocated? Which area is important to taro patches or traditional gardens?

SF: This taro patch is located in the owner's land so whenever they're going to be relocated it's got to be on your land rather than having your taro patch on somebody else's land.

HKA: Are there medicinal plants or resources in the project area and is there knowledge or plants unique to proposed construction areas (including downstream and surrounding areas)? If it is acceptable to share, could you identify them?

SF: Yeah, if it's in the way it could be eliminate them and look for the same type of medicine elsewhere rather keeping them in the way of the project

HKA: Are there fish weirs (present or no longer present), fishponds, reef areas, mangroves, or foraging grounds that are culturally significant? How often are these areas visited? How will you be able to continue traditional practices if these areas are impacted or otherwise inaccessible?

SF: Whatever the project going to take place for sure it's going to go on but in the water we do have a specific location for each type of fishing that's it all located there in the water but then here's the channel to be dug up anytime soon for the big ship coming in so all those places for where we set up fish traps at will be ruined where the project taking place.

HKA: What kinds of fish, octopus, crab, marine shellfish, seaweed, sea cucumber, or other marine resources can be found along the shores of the project area?

SF: Many in fact begin from India coming down to Malaysia all the way here through Micronesia going to Hawai'i, the more coming down the more fishes were in the water but when it reaches Hawaii then it becomes less. We have many more species here than Hawaii. To name all the fishes by the coral here I don't know and most of them I couldn't name them in English. They're different from the outside fish like tuna and wahoo and all that. We have so many types of fish within the reef.

HKA: Do you guys have *atule* (big-eyed goggle-eyed scad or type of scad [*Selar crumenophthalmus*, *Trachurops crumenophthalmus*]) fish?

SF: You see these two channels here usually come in from the other one Gabach channel in here to lay their eggs but then when you use fishing lines, they won't bite it but this one on here you can hook them here. It's kind of impressive because there are the same kinds of fish, but you can hook them from the other channel, and they won't bite. That's a natural thing I cannot explain. Around the island there are certain types of fish that come by laying their eggs in different villages, here is the mackerel and the other is a different kind that comes by the shore to lay eggs.

HKA: There are hundreds of them right, swimming schools, there are hundreds of them, right?

SF: Yes, of course.

HKA: You guys have marine sea clams here, right?

SF: Yes, we do.

HKA: Seaweed and sea cucumber?

SF: Yes.

HKA: So, all of that will be impacted. How should traditional fishing and gathering practices and locations be protected and the knowledge associated with them preserved? Is it possible to map these areas as a mitigation measure?

SF: For the local type of fishing most of them are going to be ruined when they have the seaport worked on because they are going to open the channel bigger and they're going to ruin all the fishing spots so those are going to be over with soon.

HKA: How should access to areas be maintained during project activities?

SF: It's like going back to square one because those places for laying out the net are wider and are ruined where we used to fish at. We're going to retrace where we can lay the net at and things like that when the project has already taken place.

HKA: Are there freshwater streams, ponds, or rivers flowing to the ocean within the project area? How do we protect these valuable resources? What other resources are there within these streams themselves?

SF: Actually, mud is what will flow in and probably kill what's in the streams, but we can have canvas to cover to prevent the mud from entering.

HKA: Like a curtain

SF: Yes, canvas to help prevent not letting the mud not to come into where the fresh water is.

HKA: Are there sources of raw materials, like seagrass that are used to make specific kinds of fishing nets, that are unique to these areas and/or only available to some community members that are threatened by the proposed construction?

SF: The sea grass by the channel there if it's going to be ruined by having the channel open those are the things the fish come by to hide and to eat them. They might be affected by opening the channel. We also make fishing gear out of the seagrass. I don't know the English name for it, but we call it kef.

HKA: Do you know if there are cultural places tied to myths, oral traditions, or community identity that need recognition?

SF: Not within this channel here there might be, but I don't know.

HKA: Are there taboo areas or places restricted by clan lineage or gender?

SF: No, not that I know.

HKA: Are there raw materials like green schist still extracted from these areas for *chumal* (traditional structures) or wood and thatch for *fa'luw* (men's meeting house)? Do you know if it's in that project area?

SF: They are by the shore which probably may be affected by the project. Probably the mud will be scattered and may flow toward these nipa trees and may ruin them or kill them and those are used to cover the roof with.

HKA: And they require salt water too

SF: Yes, they grow in a muddy area.

HKA: Is there a cultural, spiritual, and/or reverence for the mangrove here on Yap? Are there Yapese stories tied to the mangrove in your village/municipality? Would you be able to share that with us?

SF: Within our place no. Never heard of any.

HKA: Within your lifetime, have you seen changes in the mangroves? Do you think this is related to development, climate change, or other causes? What effect did it have on the ocean, freshwater, or other plants and animals (like coral, crabs, fish, seaweed, sea cucumber, snails, and/or bats)? Have you seen changes in the mangroves? Do you think this relates to climate change or development of any of these projects? You guys had a typhoon years ago, did you see any changes in the typhoon?

SF: We used to have so many of them before.

HKA: Sea urchin kind of spiky ones?

SF: Yes, they are edible, and they are seasoning. They appear twice to three times a year now they can no longer be found anymore. I don't know if they are affected by the ship or I don't know but you can't find them anymore, maybe from the ship coming in and putting out oil and some other pollution.

HKA: And the sea cucumber they were affected too, right?

SF: Yes

HKA: Are there fish living in the mangrove that cut down the mosquito population?

SF: That I don't know.

HKA: Is mangrove used for medicine? skin disorders, ulcers

SF: Yes, people have different types of medicine on the mangrove trees. I think there's more than five types of mangrove trees. I think Margie mentioned that there are nineteen types of mangroves trees. She is an Anthropologist here in Yap. She knows more about trees and natural things.

HKA: Do you know about using the mangrove trees flower to make the *nunuuw* (lei, garland)?

SF: Yes, they do but not very common. They prefer the flowers on land. I don't know the name of the type of mangrove flower we use for leis.

HKA: Last is about graves and mortuary areas. They are kind of sensitive questions.

HKA: Are there known graves (traditional or modern) within or near the project area?

SF: Not this place here.

HKA: I want to ask you, if there's anything you want to add to this interview?

SF: Since the project is going to take place and of course whatever sources in the water are going to be destroyed people are going to benefit somehow, right they have something in place of the things going to be taken away, is it?

HKA: So, you want people to be compensated with the resources that are depleted from water and from the land. That is what I want you to state so they can have that information.

SF: I don't know if I can be heard anywhere this is just my personal opinion. I hope somebody else will be speaking the same.

HKA: So, I thank you so much, do you still have anything to say?

SF: No, I'm good for now.

ORAL HISTORY INTERVIEW

With

Aloysius Gaan [AG]

October 24, 2025

Kanif, Dalipebinaw Yap Island, Federated States of Micronesia [FSM]

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Sarphina Gudiiy [SG]

Recording file name: <IA202449_ Aloysius Gaan_SG_2025-10-24.wav>

The interview took place at Pawchig in Kanif Dalipebinaw, Yap Island, Federated States of Micronesia

HKA: Greetings. Today is October 24th, 2025. I am Hannah Kaumakamanōkalanipō Anae beside me is Sarphina Gudiiy and I represent International Archaeology and Sarphina here is a translator and field assistant from the Island of Yap, we are on the main Island of Yap one of the Federated States of Micronesia, our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with Aloysius, and Aloysius can you state your full name.

AG: Aloysius Gaan

HKA: Hello Aloysius. The interview encompasses a series of questions, and I want to excuse myself and say sorry if I seem nosy or brazen. It is not my intention, but just for the purpose of this interview to help us understand the potential impacts to cultural practices and economy as a result of the proposed project. The information you provide will be used to help develop possible mitigation measures to offset the impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview.

HKA: Let us begin the interview. Aloysius, what village are we at?

AG: Kanif

HKA: As a visitor here I'm not sure how far away we are from the Seaport or the Airport.

AG: Here it is only, this island is only seven miles including the reef. Only seven miles

HKA: We aren't too far away from it right now Can you give an overview of what you do here, like fishing or you're a fisherman or farmer or are you both?

AG: Back in the days I was a fisherman and also did some gardening and planting betelnut trees but now I don't have the strength.

HKA: And you told me you are 72 years old?

AG: Yes

HKA: Thank you for meeting us today because I know you're not feeling well. Thank you very much! Is there any concern that you might have regarding this project whether it be natural resources or fish population, the mangroves?

AG: There is a graveyard at Fedour. Is there a way to avoid the graveyard? I know that they are going to extend the airport.

HKA: That is what we are trying to mediate, we are trying to find ways or solutions, so your solution is to try to avoid it.

AG: Yes, but I don't know those people at that side, they also have taro-patches and fishing grounds. Did you have a chance to talk with them?

HKA: We've talked with only a few people so far but there were concerns and so if the project was to happen would you recommend trying to avoid it but what if we have to? Would it be okay for you if we relocated the graves?

AG: I cannot comment on that. The grave is not part of my lineage. You have to go back and ask them.

HKA: As a fisherman what type of impact can you see that could happen?

AG: I don't worry about fish because there are agencies here MPA they get paid for, that's their job.

HKA: What kind of fishing did you do when you were younger, do you know what type of fishing it is now?

AG: Spear fishing at night.

HKA: What kind of fish do people spearfish?

AG: Red snapper, rabbit fish.

HKA: How about crabs, you guys have a lot of crabs in the mangrove?

AG: Yes, we have.

HKA: What are the sources of income usually for families or are they in this area? Do you use a lot of natural resources like fish or do you guys' supplement work outside or do you guys use a lot of taros or what's on the land.

AG: Yes, we harvested taro and sold it to the market or store.

HKA: So, you guys have a lot of taros?

AG: Yes, you can see taro when you come here.

HKA: Is that the *mal*, or *laey* taros?

AG: No, those are the land taro.

HKA: Can you identify any economic advantage that might happen because of these projects?

AG: What project are you talking about?

HKA: These two projects, how can you see it helping the community in anything because I know there is a lot of adversity, but can you see any positive things that could happen in expanding the airport or making improvements to the seaport?

AG: I really cannot comment on that.

HKA: Supposedly they won't be flying out here, flying constantly but we need to discuss that further because I know those aircraft make a lot of sound. It has fuel and you are probably concerned about that.

AG: The grave can be moved if those people agree that I'm just wondering and thinking about the future, thinking of the younger generation. The aircraft that we have now, which are flights for United and APA for cargo, come three times a week as I have seen as well as other people have mentioned that they are affected by the airplanes. I have noticed some effects on our environment. There are some black substances that are on breadfruit leaves, betelnut trees, taro orange trees, nipa (native palm [*Nypa fruitcans*]) and some other trees that are from airplane fuel. It's a sticky black substance that when its dry season appears to be more on tree leaves but when it rains it washes some of it knowing it's going into the soil. I know that it's affecting our environment as well as the growth of the trees. We have it here in Dalipebinaw area and south side Nimgil and Rull area have a lot maybe because that's where the airplane takes off and land. They used to have plenty of breadfruit and orange trees but now they have few it might be from that and also from climate change. Plants and trees are not growing as healthy as before when I was young.

HKA: Do you guys have customary practices like men's houses? You guys still have *ra'ay* (stone money). You have all these other things because I notice you guys still have some of your customs, traditional practices. If there was, for instance, any type of platform like a stone walkway, if they have to be moved, how would you feel about that? How would you go about that? We would need people from that certain village to lead, what are your take on that?

AG: Yes, you have to ask the elderly in the village. They can make the decisions.

HKA: Even if the taro patch needed to be moved, you must ask the elder right?

AG: Yes, those who owned the taro patches.

HKA: So, does your family own this place?

AG: No, for the village.

HKA: What kind of fish, octopus, crabs, seaweed, sea cucumber or other marine resources along the shore?

AG: That is for sea cucumbers.

HKA: Did you guys put this sea cucumber farm here? When do you guys harvest?

AG: The main resource comes and monitors and sprouting time they come and take them.

HKA: They collect the eggs and have them reproduce.

AG: I think there's a Japanese person there that knows the time for sprouting when they come and get the eggs.

HKA: How much sea cucumbers do you guys harvest here?

AG: We haven't harvested anything because now there are not many sea cucumbers. There was a Chinese person that came and bought sea cucumbers here in Yap, even in Rull it used to have plenty but now no more. All gone. This Chinese guy came and bought sea cucumber from local people mostly the whole is, and ran out. So now the marine resource is helping with farming sea cucumbers

HKA: And this is what they're doing farming it and getting the eggs.

AG: In Malay they also have a farm for sea cucumbers. The one here in my village is owned by Kanif village. I think sea cucumber is a filter to the ocean, is that true?

HKA: Yes, I think it's true but that is really a food resource.

HKA: Do you guys have any or how should traditional fishing and gathering practice and location be protected and the knowledge associated with them be preserved, is it possible to map this area as a mediation measure, because what we are trying to do is we are trying to come up with ways to help preserve even stories of fishing practices or the way that you guys do fishing should that knowledge be preserved. This information will be at HPO.

AG: I don't know if the Google map is updated. I think they map some area, but I don't know if it's updated or not like the fish traps even the MPA areas where they preserve fish. Kanif used to farm rabbit fish before they started farming sea cucumbers.

HKA: How did you guys do the rabbit fish?

AG: The rabbit fish farm is close by to the shore where there is sea cucumber growing up to the deep blue. Marine resources provide for the rabbit fish feed and teach the men and youth in the village how to take care of them. They come from time to time to take pictures of the project. When the rabbit fish matured the RND and Marine resources office came and took some and the rest was shared among the household in the village.

HKA: Do you know if there's churches, shrines or ritual areas that may be affected by this project?

AG: Maybe the project won't come all the way here but where there are two projects I cannot tell if they have any or not.

HKA: How do you think the project is going to affect you guys here in this area?

AG: The sound of the construction and the sound of airplanes will affect us.

HKA: Thank you for your input because it's important to help us analyze mitigation and situation, we can ask this hard question about the sound.

ORAL HISTORY INTERVIEW

With Terry Leewes [TL]

October 25, 2025

Yinuf Rull, Yap Island, Federated States of Micronesia [FSM]

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Sarphina Gudiiy [SG]

Recording file name: <IA202449_Terry Leewes_SG_2025-10-25.wav>

The interview took place outdoors in Yinuf, Rull, Yap Island, Federated States of Micronesia. The recording has one part.

HKA: Greetings. Today is October 25th, 2025. I am Hannah Kaumakamanōkalanipō Anae beside me is Sarphina Gudiiy and she is our field assistant and translator. We are on the main island of Yap, one of the Federated States of Micronesia. I would like to say, I represent International Archaeology, LLC. Our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with Terry Leewes and can you please state your full name.

TL: Terry Leewes

HKA: Do I have your permission to record this interview?

TL: Yes

HKA: The interview encompasses a series of questions, and I want to excuse myself in advance if I seem nosy or brazen, it is not my intention, but just for the purpose of this interview to help us understand the potential impacts to cultural practices and economy as a result of the proposed project. The information you provide will be used to help develop possible mitigation measures to offset the

impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview.

HKA: Terry I would like to ask you, what village do you come from, and your proximity to the airport, seaport or project area?

TL: I'm from the village of Yinuf Rull municipality and I live by the airport. Yes, I'm in the safety zone.

HKA: What is your role in the village?

TL: I'm from Yinuf village.

HKA: Are you a nurse?

TL: DR: No, my father is from this village.

HKA: In the village do you take care of gardens?

TL: Yes, taro patches gardening, and taking care of the lands.

HKA: Do you do something by the ocean?

TL: Just the lands ocean is just fishing

HKA: Do you crab?

TL: Yes, on land and in the mangrove

HKA: First, we are going to start with the question of the economy. Will the proposed projects impact sources of income for individuals, families, or community groups (including during and post-

construction)? One example is betel nut runners. If the United Airlines cargo flight changes to another night, will that impact on economic resources?

TL: Yes, If the flight moved to three or four days it will affect the us on low supplies for exporting and most people don't have a job they depend on marketing so for sure will run out of food and supplies like for betelnut they will start in getting all the betelnut and the ones that don't do market they will not have any for them to chew not only betelnut even fish, crabs and taro.

HKA: Are there tourist sites that will be impacted by construction (e.g., dive sites, WWII sites, mangrove swamps, fruit bat habitats)?

TL: Yes, there will be an effect on the economy because there are tourists that come all the way here just to visit those sites, and the community sometimes collects money from them by visiting those sites.

HKA: Can you identify any economic advantages that might happen because of the projects?

TL: Yes, there will be. Sometimes we run out of supplies and sometimes there is drought and the main island as well as outer island run out of food and water. It can be a help in bringing in supplies due to more flights coming in.

HKA: Now we are moving into cultural protocol and stewardship. Who are the traditional leaders or custodians responsible for cultural sites in this area?

TL: The land is owned by the people but there is a chief of the village and municipal chief, so if there is work done in a certain place, they have to go through the village to talk with the community to agree with what needs to be done.

HKA: What is the proper protocol for visiting or working near these places? How can outsiders or visitors to Yap act in a way that demonstrates respect for these places?

TL: If there's outsiders working or visiting a place it should be the municipal chief that gets the word from visitors and shares it with the village chief, and it will be the village chief that will bring the word to his community and share what the project is about and how it's going to work out.

HKA: May we record the place names of the areas that might be impacted (land names, fishing locations, coral reefs)?

TL: Yes, the name of this place is Dakaen ei Dakey, this area is a community cemetery, but each family has their own piece of land that they bury their bodies in. There is no men's house here, only cemetery.

HKA: Do you have a name for the whole cemetery?

TL: Yes, Dakaen ei Dakey but my portion right next to my house here is called Fit Leewes, Dakaen ei Dakey is the whole cemetery. Each family has their own name for themselves. Maybe because my great grandmother's name is Leewes which she is buried there, maybe that's why they name my family cemetery Fit Leewes. My father's mother remarried so my dad didn't name me after his mother. That's why he named me after his grandmother. Our name is where we inherit our land.

HKA: If the *wunbey* (stone platform) or *rai* (stone currency) have to be relocated, who are the people to be contacted? Who would be rebuilding and/or moving the *wunbey* and *rai*? What are the appropriate protocols necessary for relocation? What location would be recommended?

TL: There are many types of *wunbey* in the Village. There are some for the men in the community, some are for women in the community, some are owned by individual families. The ones owned by families are the ones that make decisions on how to relocate them but the ones for the communities are made by the community members along with the men's even as the stone money. Long before when stone money is given to you it stays where it is because of transportation but the family or people in that area are aware of why and how the stone money was given to you and why it was given. The next generation will tell them who and why the stone money was given to the certain individual or family. I have two families in the village that are owned by two families, one is for Lugul from Okaw village, and one is for Famaw from Balabat. Long before when

transportation was hard, they usually left where it was given but both families are passing down the story to the next generation. There are some that it's not good to be moved because there's a reason for it to be in that place.

HKA: Now we are moving to food and subsistence resources. Which areas are important for taro patches or traditional gardens? Is there information about the floating taro patches that can be preserved or shared? Can the patches be relocated?

TL: The taro patches cannot be moved. There's no floating taro patch here but if it needs to be moved it all depends on if there's space for relocation. If the taro patch needs to be covered it has to be decided by the owner(s). The best thing to do to taro patch is if it can be left the way it is and fix a way for it for water to flow down it would be good.

HKA: Are there medicinal plants or resources in the project area and is there knowledge or plants unique to proposed construction areas (including downstream and surrounding areas)? If it is acceptable to share, could you identify them?

TL: Yes, there are but it's not rare plants, it's still all over the place. No special medicinal plant in the project area that it's hard to find anywhere else.

HKA: Are there fish weirs (present or no longer present), fishponds, reef areas, mangroves, or foraging grounds that are culturally significant? How often are these areas visited? How will you be able to continue traditional practices if these areas are impacted or otherwise inaccessible?

TL: We have this big mangrove down by the airport called Galil and it goes all the way to the old airport. I think that the project will affect some things in land and in the water because now without the project there are some shells in the water that are getting fewer or nothing at all like the sea urchin we used to have before and now nothing. It might be because of the dirt taken by the stream in the ocean or climate change, probably pollution from the ship coming in from the other side too. All these things that need to be done for both projects there are some things that will be affected in order to have something good in return. If there's a way to prevent some of the things to be destroyed it would be good.

HKA: And the sea urchin what is it called?

TL: *Yo 'oq* (sea urchin).

HKA: We called them *wana* (sea urchin) where they have the yellow thing inside.

TL: Yes

HKA: You guys eat sea cucumbers too, right? And what are sea cucumbers called?

TL: *Lugul* (sea cucumber).

HKA: Are there rabbit fish?

TL: Yes, we do have and even parrot fish too.

HKA: Mangrove crab lives in the mud

TL: Yes

HKA: How about coconut crabs do you have?

TL: Yes, we do but it's getting fewer, it will be affected because when it's playing season for them, they come by the ocean and lay their eggs even though they live on land. The coconut crab here on the main property is dangerous to eat because there is a poisonous vine that sometimes they eat and if you don't know how to clean the intestine you can die from it not like the ones in the outer island. Not only the vines, but sometimes people also go crab hunting, and they throw away their batteries and maybe they eat them too.

HKA: How about snails?

TL: No

HKA: How about bats, do people eat them? Do you think they will be affected too?

TL: Yes, we do eat them and yes, they will be affected too. There are times when they are up in the mangrove areas, maybe mating season and sometimes they're up in the savanna areas. The noise of construction, cars and airplanes' sounds might chase them away.

HKA: Do you guys have seaweed?

TL: Yes, but not much like before it's getting fewer.

HKA: They need fresh water to grow well.

TL: There is some kind of shell smaller than clam that lives in the mangrove that is getting fewer but still can be found. All these seashells, seaweed and other marine life are getting fewer for a lot of reasons, dirt going in the water, public dumping areas by a big stream that goes in the water too, water pollution and climate change.

HKA: Over your lifetime have you noticed changes in how the mangrove filters run off or protect the land during stormy season?

TL: Mangrove is very important to land. If there's no mangrove every storm or typhoon it will wash off the land. It's a big help protecting the land from erosion. I believe during the construction on the main road pavement and the existing airport lots of dirt is going in the water and the color of sand has changed, it's not white it's kind of brown especially in Gilman where they have little sandy beaches. It's been like that for so many years now.

HKA: You know when there is storm season, can you recall any significant changes to the mangroves? It takes a longer time for the mangrove to recover.

TL: Yes, during typhoon sudal in 2004 Or 2005 the island turned brown for so many months that's the time until now that I noticed the mangroves weren't as thick as before.

HKA: Are there fish living in the mangrove that help to cut down mosquitoes?

TL: We don't have one.

HKA: How should traditional fishing and gathering practices and locations be protected and the knowledge associated with them preserved? Is it possible to map these areas as a mitigation measure?

TL: There were fishing practices long before that we don't do nowadays that we need to learn and teach the younger generation in order to keep our fishing practices like K'ef, Mangagow, Ach. The older men need to teach the younger generation in order to keep this practice. Since we don't have men's house only the platform it needs to be taught at home. Men's houses are usually the place where they learn these practices.

HKA: Women need to learn these practices, right?

TL: In Yap the women don't fish only when the men come from fishing. That's the time the woman gets involved in preparing the fish. If they see a woman fishing you will get in trouble or you will be the topic in the community that the men in your household don't fish. It's the men's responsibility to teach the younger generation this fishing practice.

HKA: Are there freshwater streams, ponds, or rivers flowing to the ocean within the project area? How do we protect these valuable resources? What other resources are there within these streams—fish, shrimp, crab, etc.?

TL: Yes, we do have streams, and we have shrimp in the streams even water eel, but the shrimp is not as much as before. Sometimes when you go you won't see or catch many. If it's possible when the airport project starts, if there is a way to help these streams not to close them but to keep them

flowing down it would be really good because there are things that these streams help in our environment like taro patches to keep the water inside flowing in order for taro to grow healthy.

HKA: Are there sources of raw materials, like seagrass that are used to make specific kinds of fishing nets? How about you guys, have those palms used for thatching? Do you guys have that here?

TL: Yes, we do have mangroves in the village.

HKA: And if that needs to be taken out are there any places that can be moved or replanted? Do you have palm trees here?

TL: Yes, we do.

HKA: Do they grow anywhere else?

TL: No, only in savannah areas are where the palm trees can grow. Mostly grow somewhere rocky and dry. It can grow down in the village, but it won't grow as healthy as the ones here. When we moved here in 2001 there's a lot of palm trees here. These trees here we just plant like breadfruit, betelnut tree and coconut trees. For the nipa it only grows in swamp areas where there is salt water that flows to it. If it has to be relocated it has to be in a place where it's muddy or swamp area in order to bear long leaves it needs that salt water.

HKA: Now we are getting into religious sites and practices. Are there churches, shrines, or ritual areas that could be affected by project activities?

TL: Here by the airport, we don't have any but on the west side in Dalipebinaw they have a couple of churches.

HKA: Do you guys have a special name for wind or rain?

TL: Yes, before when it's close to Christmas, it's raining season, is called Sarbul, but due to climate change things are changing. When the wind turns to the east side it's called Maer Ngek, its windy time.

HKA: What types of construction or noise would be disruptive?

TL: Yes, the sound because now that the GPPC construction is down across from my house sometimes when the asphalt plant is on, I have to go somewhere else because I cannot stand the loud noise and smell of asphalt so when the airport project starts for sure the sound and noises would be another problem for us here.

HKA: How might spiritual connections to ancestral practices be affected, interrupted, or damaged because of the proposed construction projects?

TL: No, I don't know any from here. Most people now are Christians no one practices those now.

HKA: We are going into traditional cultural practices. Are there cultural places tied to myths, oral traditions, or community identity that need recognition?

TL: There is a road that comes into the village from Yinuf that goes and crosses the hill and goes to Dalipebinaw. There is a local house up at the end of the runway at the airport. There was a local house with no wall that was built in the middle of the road that when you walk you go through that house to the other side. I don't know about the house and the story that I heard from my great grandmother.

HKA: Are there spirits that go along with you when you travel?

TL: I don't know. Maybe.

HKA: Are there taboo areas or places restricted by clan lineage or gender?

TL: There is but we don't practice it now. Long before when a girl has her first menstrual, she will be put in a place called Dapal and be there for six months without coming home. Someone from a low caste village is responsible for bringing you food and things that you need until you finish your time. When you go home you will be having your own pot you cannot eat from your father or mother's pot.

HKA: When was the last time they practiced that?

TL: Late in the 50's. I was eight years old at that time. Every time when my mom and I come and she is having her monthly sickness we go and stay in that house. A lot of children were delivered to Dapal.

HKA: Are there raw materials like green schist still extracted from these areas for *Chumal* (traditional structures) or wood and thatch for *fa'luw* (men's meeting house)? Oh, sorry I just asked you that before, how about the woods?

TL: Yes, we do have wood that we still use for houses and its Mahogany tree.

HKA: So, that will be affected?

TL: Yes, because if we are going to need it, we don't have it in our village we are going to go ask someone in another community.

HKA: If the wood needs to be put down, is it possible to put it somewhere?

TL: Yes, it can but we have to wait for so many years.

HKA: How long does it take for a Mahogany to grow and mature?

TL: I don't know, maybe thirty to fifty years.

HKA: If they brought down the trees, would you guys want to use them?

TL: Oh yes, we can use them or sell them. I used to have two big trees here called Gumar. They were tall and big and also it takes many years to mature in order to use as wood for building houses.

HKA: You guys have breadfruit, betelnut trees and banana trees?

TL: Yes, even chestnuts.

HKA: You guys have Noni?

TL: Yes, we do have sour sap we use for eating and medicine. The leaves are really good for tea, even tea leaves for medicine and wrapping food. We also have passion fruit.

HKA: Do you know that passion fruit flowers are also used for local medicine. You can take the purple flower and put it in your tea, and it will help you sleep.

TL: Yes, local medicine is good because there are no side effects.

HKA: Do you guys use mangrove for local medicine?

TL: Yes and even building houses.

HKA: So, you know if the medicine is used for skin disorders, boil or sores? What do you guys use mangrove for, medicine?

TL: The one that I know is for ulcers.

HKA: You know the flower on the mangrove tree? Do you guys use it for *nunuuw* (lei, garland)?

TL: Yes, we string it and use it for *nunuuw*. We call it *yiiy*, the kind with red flowers. The one for the head is *taliaw* (lei garland for the head) but for the neck is *nunuuw*.

HKA: Is that lei special?

TL: No.

HKA: So now we are going to move on to the next section of questions which will be sensitive and important because they involve graves and mortuaries. Are there known graves (traditional or modern) within or near the project area?

HKA: As you mentioned before, this whole area is a grave for the community. Is it several acres?

TL: Yes.

HKA: How should graves be identified, marked, and protected? The ones that we save or be moved should talk to the owners as well as the chiefs. Who will be the one responsible for moving them?

TL: Whoever owns the graves will be involved.

HKA: Are there any Japanese graves around this area?

TL: Yes, but the HPO office came and took it a long time ago. There are seven belonging to my family.

HKA: Are there cultural protocols for visiting, documenting, or discussing graves?

TL: You can go straight to whoever owns the grave, but the ones owned by the community have to go through the village chief.

HKA: If a new or inadvertent grave is discovered, who should be notified?

TL: The person that owns the land and of course the village chief.

HKA: Is there anything you want to discuss?

TL: If these graves are asked to be removed is there someone like the government or the DOD that will help me relocate or is it my responsibility to relocate my graves?

HKA: No, they are supposed to work with you on how the relocation should be or how to go about it.

TL: Okay

HKA: They need to know first how to address it and know how they can help.

TL: What the former governor John Mangafel no black and white he called me and asked me to go to his office while he was still a governor. I went and saw him, and he told me that I'm in the safety zone of the airport one day. If they are going to extend the runway don't give them problems. Has the government help you remove the graves outside the safety zone. It's good when things like this don't give hard time because it's good for everybody or our community. He told me that if it's for people's benefit don't give a problem, but you know it's not black and white at that time.

HKA: What I'm doing here to find the impact before the project to know how to address things respectively for the community to be done right.

TL: Development is good, but it has two sides.

HKA: Anything else you want to say?

TL: If the taro patch still has taro or people are still using it for their resources and it's in the way of the project, if there is a way to protect them, I would really like that even for the mangrove areas.

HKA: If these properties are needed to be moved is that a good thing to do?

TL: Yes, that's also a good thing to do. If I have a piece of land somewhere and there's help somewhere I would give my taro patch to be relocated. Even a small piece of land would be okay just to plant my taro in it.

HKA: Anything else you want to say?

TL: Safety first if they have to cut all the trees or flatten the area it would be okay for me. These are all my plants. I can go plant it elsewhere.

HKA: Thank you for this interview!

ORAL HISTORY INTERVIEW

With James Lukan [JL]

October 27, 2025

Yinuf Rull, Yap Island, Federated States of Micronesia

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Matthew F. Napolitano [MFN]

Recording file names: <IA202449_(1 of 1)_James Lukan TD_2025-10-27.wav>,

<IA202449_(1 of 2)James Lukan TD_2025-10-27.wav>

The interview took place outdoors indoors at Waab Main office, Yap Island, Federated States of
Micronesia. The recording has two parts.

HKA: Greetings. Today is October 27th, 2025. I am Hannah Kaumakamanōkalanipō Anae beside me is Matt Napolitano and he represents International Archeologist LLC and also present is Tinnie. Tinnie, can you state your last name. My name is Caroline Tinnie Dabugsiy. She is our field assistant and translator. We are on the main island of Yap, one of the Federated States of Micronesia. Our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with James Lukan. Is that your full name?

JL: Yes, that is my full name.

HKA: Do I have your permission to record this interview?

JL: Yes, you do

HKA: The interview encompasses a series of questions, and I want to excuse myself in advance if I seem nosy or brazen, it is not my intention, but just for the purpose of this interview to help us understand the potential impacts to cultural practices and economy as a result of the proposed project. The

information you provide will be used to help develop possible mitigation measures to offset the impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview.

HKA: James, I would like to ask you, what village do you come from, and your proximity to the port?

JL: Well, I'm from the village of Dugor in the municipality of Weloy. I'm approximately two miles from the port.

HKA: What are the contributing factors to your choice of career, and you are the general manager here at the Waab Transportation Company Incorporated?

JL: I've been the general manager for the company for approximately three years now helping out with my family business. It's not necessarily a career choice but yeah.

HKA: Is there any concern about the project that may affect the work that you do?

JL: Not necessarily in fact it would add value to our work that we are the seaport operator permitted by the government to operate the seaport so the development will actually help our operation as well.

HKA: So now I will turn it over to Matt and he will ask you some more questions.

MFN: Could you explain some of the benefits that might come out of the port development?

JL: Obviously the development infrastructure is something we're looking for. It takes the government so many years to try to improve the seaport as you may see the condition of the seaport. In the federated state of Micronesia, we are one of the best ports but still have a lot of rooms to improve this poor condition. I think we can do a lot with our rubber fenders. Government put up some funds previously to replace them if the eight ton markers are improved our operation here at the port will be improved at the moment we do not bring in vessels at night it is not permitted by the sea transportation authority due to the eight ton marker so the improvement of the channel will provide

ease for the maneuver as well so there's a lot of positive impacted with potentially seen the project through for the seaport itself.

MFN: Would you say that you all have had an input or a say in any changes or is it all welcome no matter what it is

JL: As a port operator I know the Department of defense is trying to be as inclusive as before and there is going through a lot of bureaucratic stuff here in Yap so there's a lot of ends that are not tied quite frankly, we are not consulted about the port improvement. The port is actually an asset of the government, so I guess the government assumes our perspectives are not yet shared and relevant, but we have been operating this port for more than fifty years.

MFN: And that's your family this whole time?

JL: Yes

MFN: With the proposed port development there will be changes of course around here talking about dredging at the edge to make room for the barges, are there any potential impacts to or are there any seen positive impacts or something maybe not affecting the port even there just bringing barges in dumping dredges spoil here.

JL: I don't see any issue here you know Yap normally receive a minimum of three cargo vessels a month every now and then we have a domestic vessel running in and out the fume it is that I've taken part of not a general manager but a member of the community the folks are always saying that normal operation of the port will not be to optic so where fine with that we don't have much traffic we anticipate the traffic as a buildup start. There will be a lot of cargo ships coming through, but we don't find any issue with it as the port operator.

MFN: Do you have any thoughts on the changes that are proposed for like the road this may be outside of you and your job but connect the road to the airport and around Chamorro Bay will be a pretty big impact on that road so much, can you anticipate this might interrupt people's ability to get to work easily in Colonia or ability to get to the store in YCA something like that?

JL: It will definitely drop normal traffic because there not room to put up alternate detour road or what not so there will be an impact used cars coming into the island every month but I think it's an opportunity for Yap state government to get this road done other company has come through they've done major projects here in Yap for instance the runway resurfacing and I think it was a fail on somebody part this company did a great impact on the road but they were not obligated to maintain the road but for port operators it help us a lot because we hoe containers back and forth. This road was built probably in the early 70's so it's been rough for quite a long time now. I hope the government can continue the improvement of the hospital. This company will take care of a chunk of it.

MFN: In the '70s they continued in filling these areas with land reclamation?

JL: Here when I was born in the late 70's but the others used to talk about this area that they did a reclamation for this area, so ownership is just confusing now who owns it now, there's even a family in Guam who has a kind of have ownership over here, the Flemings.

MFN: Do you know any of the stories that came from the island about Lalach, Tablaw, Gachug? I might say it wrong.

JL: Probably those are from the separate community on Rull I'm from Weloy side so I wouldn't know much about their particular history. For Weloy yes, we do have cultural practices that are tied to the water space that is here. Those types of practices are eroding unfortunately but we people here still speak about it. Weloy, we do not have much concern about this project that would disrupt our cultural practices. Disruption has already been made during the Spanish, the German and the Japanese so everything has kind of normal people kind of fully accepting it a public way coming through to the port, so I think it's not even a challenge knowing my community we have met with the DOD for a while. We have a bit of concern not really concern but to the point we disagree with the project we just felt that we were short change when it comes to dredging the tip over here because this is a part of Weloy then the consultation done with Tomil regarding the other side of the channel so we were hoping Weloy would be consulted on this other part of Weloy that would be dredged what's going to be done with the material. We still have a system in place where we would want our chiefs, municipal chief, village chief to make a decision on if not the dredging would happen but if the dredging happens what should be done with the material, we are not in no

rush to know the answer to that from the community perspective. We are hoping time will provide for the DOD and Weloy community to discuss that.

MFN: Through the task force?

JL: I hope. The last time we met with DOD they asked, "What do you guys want to know? I said oh well you guys wanted the meeting, so you tell me what you want to tell me. They are fine. I know they are working really hard. I think they have issues with the government. I would presume the government is not really pulling out information. For us as a port operator we learn about this development in Guam some technical information. We go to this Guam industrial forum, and you have the same group there, Society of American Military Engineers. My CEO and I attended that meeting and we found out about what contemporary designs place for this development.

MFN: And so, that deploy to when to dredge the spoils here on that side.

JL: For the community of Weloy and I because I have water space leading up here to the port privately owned so what would be our biggest concern is sedimentation control, and we have seen some proposals with the DOD on how they are going to do that. They look good but what looks on paper and what happens are not always the same.

MFN: So, the water is still yours privately owned, so you still use that for fishing or?

JL: Yes, my village is north of Okeefe island, Leprosy Island right into the bay. Those are our fishing grounds. We fish a lot all the way to this eight-ton marker.

MFN: And so, they are concerned about sedimentation would affect them?

JL: Yeah, the little reef that we have because the space is so small on land, the seaweed area then the reef.

HKA: What kind of fish do you guys' fish for?

JL: Rabbit fish, parrot fish, red snappers, octopus.

HKA: So, you guys have octopus?

JL: Yes

MFN: Were there any fish weirs?

JL: We have a couple fish weirs as you move into the interior but not here.

HKA: By the mangroves

JL: All this raises concerns because development has happened before you know the paved road has a big impact on small reefs just the runoff from the asphalt and how they channel drainage water edge the way the ecosystem behaves has changed. We don't normally find the seashell where we normally find them. The timing of fish spooning when it's reading for catch is different now.

MFN: Is it unpredictable or just shifted?

JL: If you go every day, you will catch. Yes, it's not predictable like before.

MFN: So, this is the change that you've seen?

JL: Just my lifetime. We are putting together some mitigation in effort; you know the paved road is totally exposed so we are trying to reclaim land between the salt water and the paved road so that it can filter whatever is running off from the road because of the sedimentation on the seabed you can see evident. Trash is becoming a problem just throwing. We do what we can, you spear in the night you see an empty can you spear it too.

MFN: So that is mainly from the road verses washing up the area?

JL: Yeah

HKA: So, do you guys do a lot of spear fishing?

JL: Yes, we do net fishing not all the time because mostly the number of fish decline. Not necessarily overfishing because a lot of us are working so we are thinking fishing is changing behavior. In this bay area a lot of spooning happens for fish.

HKA: Has *atule* come in?

JL: Yes, they come in and spoon.

HKA: They come in numbers.

JL: Yes, before when they come people stay in the channel and they catch. Before we don't use the fluorescent light, we use the local torch.

MFN: What's the local torch?

JL: Usually we use bamboo and you put some used diesel inside and you put a piece of cloth or you burn coconut leaf *ou* bundle it and burn but now people buy fluorescent lights so you can catch more there are particular fish that stays only in this bay my village and my neighboring village but now it's no longer showing up.

MFN: And is that a big source of food for the community?

JL: Yes.

MFN: Is there a name for the fishing area you can share with us?

JL: We don't have a particular name. It's just the village of Dugor that the water comes up here because the channel goes all the way to the bay area where I'm from, so from O'Keefe Island the channel goes in, and one goes around O'Keefe Island and goes this way. So, the reef in Okeefe island and leprosy island belong to our village and this reef is on this side of the channel and all the way up here to the eight-ton markers here.

MFN: Did any of the proposed changes to the port or the eight-ton marker change your reference points?

JL: No.

HKA: Have you seen changes in the mangroves over the years? Is it from storms or typhoons?

JL: Yeah, they don't necessary get interrupted much there's a lot over grown because we don't do much with mangroves we just let it grows sometimes we have water ways to the mangroves now there all clogged up nobody is cleaning them up at one point I wasn't here there was an oil spillage here but did affected but they've been rejuvenated.

HKA: And do you have streams that come in this area?

JL: Yes, plenty, if you see Yap this is the middle of Yap's hilliest places. We have a lot of water coming in. In my village there are five streams.

HKA: And in this stream do you find shrimps?

JL: Yes, shrimps, eel and river fish but mostly harvest them.

HKA: Has tilapia been a problem?

JL: In my neighboring place, yes. I don't know if someone tries to raise tilapia ... then it spills out.

MFN: Is it invasive?

JL: Tilapias eat anything, and they can't die when the place dries up and they go under the mud, and they stay there.

MFN: I think that pretty much covers up all the questions in terms of cultural practices. Fishing is the most important thing that during construction you still can continue. The concern is if there's anything from the dredging and all that. In the worst-case scenario if that happens it will kill the reef and ruin the fishing.

JL: Not necessarily kill the reef because you're dredging in the deep area, you're scrapping the edge of the deep area so sediment will be basically settled down there.

HKA: How about coral?

JL: The coral will come back very quickly. My experience working here is that we just don't run the port. We have a construction company, and we have hardware kind of in other businesses, and we use a lot of heavy equipment, we do rental for people. We've done excavations before and most areas in Yap were dredged, in fact the coral grew back fast. Grows back pretty quick but then the channel here when you enter the channel on the right side there's coral growth happening on the right side and starting to interrupt the navigation of vessels. It will come around pretty quickly I think with all this big movement climate change and environmental protection is nice but dredging is not foreign to Yap, Yap does a lot in the salt water we collect dead rocks to use and that gives the coral room to grow as the coral get desolate populated because they don't have much food and circulation also fish don't have a place to stay. It's very common in Yap. There's a saying: don't come back empty handed. When you at least come back with one or two dead corals and bring it home. It increases the land mass at the same time as you're cleaning your fishing ground.

MFN: Those dead corals are used for platforms and stuff.

JL: Used for the platform we use it for seawall to prevent erosions.

MFN: And that's going to happen forever, right?

JL: We use it to redirect the sand. If you go up north, you will find parts of piers that go out. People used current to redirect sand up and there were no excavators then. People kind of have time to study the environment and what to do but now you just take an excavator out there.

MFN: Do you have anything you want to say?

JL: No

MFN: Thank you so much!

HKA: Thank you!

ORAL HISTORY INTERVIEW

With Frank Ramngen [FR]

October 28, 2025

Balabat, Rull, Yap Island, Federated States of Micronesia

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Sarphina Gudiiy [SG]

Recording file name: <IA202449_(1 of 1)_Frank Ramngan_SG_2025-10-28.wav>

The interview took place outdoors in Balabat, Rull, Yap Island, Federated States of Micronesia [FSM].

The recording has one part.

HKA: Greetings. Today is October 28th, 2025. I am Hannah Kaumakamanōkalanipō Anae here with me is Sarphina Gudiiy and she is our field assistant and translator. We are on the main island of Yap, one of the Federated States of Micronesia. I would like to say, I represent International Archaeology, LLC. Our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with Frank and can you please state your full name

FR: My name is Frank Ramngen.

HKA: Do I have your permission to record this interview?

SF: Yeah

HKA: Kamagar!

HKA: The interview encompasses a series of questions, and I want to excuse myself in advance if I seem nosy or brazen. It is not my intention; it's just for the purpose of this interview to help us understand

the potential impacts of cultural practices and economy as a result of the proposed project. The information you provide will be used to help develop possible mitigation measures to offset the impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview.

HKA: Frank, I would like to ask you, what village do you come from, and your proximity to the seaport?

FR: I am from Balabat, Rull. I don't know how many yards from here to the channel.

HKA: This is several yards, right?

FR: Yes.

HKA: What is your role in the village? Do you farm?

FR: No, I'm just a regular resident here.

HKA: Do you farm and fish?

FR: Yes, taro patching

HKA: So, do you have a lot of patches?

FR: Yeah, a little bit

HKA: Will the proposed projects impact sources of income for individuals, families, or community groups (including during and post-construction)? One example is betel nut runners. If the United Airlines cargo flight changes to another night, will that impact on economic resources?

FR: I think in some ways it would but if it can be helped, we have to accept the progress.

HKA: One example is the betelnut runners. If the United Airlines cargo flight changes to another night, will that impact on economic resources?

FR: Yeah, shipping of the betelnut to Guam and other places. The loud and the jet fumes. That's the negative side but the positive side is more income to the people exporting betelnut and fish.

HKA: Are there tourist sites that will be impacted by construction (e.g., dive sites, WWII sites, mangrove swamps, fruit bat habitats)?

FR: Here in Balabat?

HKA: Yes

FR: There is a dive site by the channel where tourists go and dive. A shipwreck at the bottom of the ocean.

HKA: World War two ships?

FR: No, it's a recent shipwreck. Submerging vessels

HKA: Is it a Japanese American ship?

FR: Commercial ship and few fishing boats.

HKA: You stated the economic advantage of the project a while ago. Right now, what we will do is to go to cultural protocol and stewardship. Who are the traditional leaders or custodians responsible for cultural sites in this area?

FR: There are some families here in the village who are in the upper rank that they have a say over the fishing ground here, especially over on the other side, all the way to the small island in Tomil, tip of Tomil.

HKA: How should findings (photographs, maps, reports) be shared with the community? Because we would want to share this information with everybody

FR: It's better to share it with the community chief and they will be the one to bring it in the community and share it with the people in the community.

HKA: We seek the community guidance to minimize cultural impacts, who would decide that each estate, or by a man group?

FR: The chief needs to know and have knowledge about the projects and he will be the one to bring it in the community and present it.

HKA: Do the proposed projects at the airport and seaport have the potential to disrupt land inheritance traditions/practices? Are there measures that can be included to mitigate that will offset potential disruption?

FR: The murky water in the channel will destroy the coral which is the main food for the fish and the airport. I don't have anything to say about it, but the water sediment will go into the streams into the oceans and will make a lot of difference and destroy the sea life.

HKA: Do you have a lot of streams here that run down to the ocean?

FR: Yes, from the taro patches it connects all the way down to the ocean.

HKA: There's a lot of mangroves there too, are there shrimp and other resources that you eat in the streams?

FR: Yes, shrimp mostly in land streams

HKA: What other resources are there to eat?

FR: That's all, some people eat water eel, but some don't. There's sea cucumber in the ocean.

HKA: How do you prepare that?

FR: I don't know, I don't eat them.

HKA: Are there sources of raw materials, like seagrass that are used to make specific kinds of fishing nets, that are unique to these areas and/or only available to some community members that are threatened by the proposed construction?

FR: Yes, we made a fishing net called Ruwal long before but not now. The aspect of life now is dying away. We don't usually make those anymore.

HKA: Religious sites and practice will move to that now. Are there churches, shrines, or ritual areas that could be affected by project activities?

FR: I don't think so. I don't know any.

HKA: There is a fishing ground at Gabach channel called malign ei Gabach which is own by Michael Ranganbay Fitaa'nu Manol.

HKA: Are there raw materials like green schist still extracted from these areas for *chumal* (traditional structures) or wood and thatch for *fa'luw* (men's meeting house)?

FR: Yes, we do have, we don't usually use mangrove for *fa'luw* or men's houses, we use mahogany trees.

HKA: Do you have nipa (native palm [*Nypa fruitcans*])? Do you think it will affect the nipa?

FR: Yes, it will affect the nipa growth due to the erosion.

HKA: How should we mitigate that? Is there a way you think we can fence it?

FR: If we fence it will die because the water is flowing in and out. Debris will be stuck inside and will kill the nipa tree. It needs flowing water in order to grow just like the taro patches. It all depends on the owner if they want to relocate to another place they own then it would be good.

HKA: Is there a cultural, spiritual, and/or reverence for the mangrove here on Yap?

FR: I don't know any place here, probably there is but I don't know.

HKA: Over your lifetime, have you seen changes in the mangroves positive or negative changes to the mangrove and the marine life that lives in the mangroves?

FR: There was one time, probably in early 2000 that forgot the exact year there's a vessel that had an oil leak and it really impacted on the mangrove, seaweed and clam and other sea life on this side in Balabat. The wind is usually on the east side, so it drifts everything to the shore. That is the time we notice the changes in the mangrove and sea life in the water.

HKA: In the stormy seasons I know you guys had a typhoon back then, did it impact the life of mangrove?

FR: Yes, during typhoon Sudal, a very strong typhoon.

HKA: Was that after or before the oil leak?

FR: After the oil leak. Some mangrove died during those two impacts, and it wasn't thick like before.

HKA: Those mangroves, do people use them for local medicine?

FR: Usually used to build small houses like this one were in but we do know some people have it as their medicine.

HKA: Have you seen the mangrove flower used in *nunuurw* (lei, garland)?

FR: Maybe before our time yes during our time no we didn't see anything.

HKA: The next section of questions is sensitive but extremely important because it's mostly dealing with graves and mortuaries in the areas. Are there any graves?

FR: Along the shoreline no, mostly in land.

HKA: If there were averted graves found. How should graves be identified, marked, and protected?

FR: All the graves are on land, nothing by the shorelines.

HKA: Is there anything you want to discuss?

FR: The only thing that I'm concerned about is the dilution around the channel and airport in the flow of silt going into the ocean that destroys the sea life.

HKA: Thank you!

HKA: What would be your suggestion of the impact with the coral and soil, what is your suggestion?

FR: I'm not a professional but the fume of the airplane is also a pollution, the flow of taro patches going into the water that connects from one taro patch to another until it reaches the ocean. It needs a flow not to cut it out from itself. Minimize the digging into what needs to be done in the upper land to avoid the murky flow in the ocean. If there's fume pollution but the water is flowing down, it will also help the plants as well as taro patches won't get trapped because when it rains it will flow back down to the ocean.

HKA: I thank you for your interview.

ORAL HISTORY INTERVIEW

With Robert Ruwan [RR]

October 27, 2025

Ngolog, Rull, Yap Island, Federated States of Micronesia

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Sarphina Gudiiy [SG]

Recording file name: <IA202449_(1 of 1)_Robert Ruwan_SG_2025-10-27.wav>

The interview took place outdoors in Ngolog, Rull, Yap Island, Federated States of Micronesia [FSM].

HKA: Greetings. Today is October 27th, 2025. I am Hannah Kaumakamanōkalanipō Anae beside me is Sarphina Gudiiy and she is our field assistant and translator. We are on the main island of Yap, one of the Federated States of Micronesia. I would like to say, I represent International Archaeology, LLC. Our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with Robert, and Robert can you please state your full name.

RR: Robert Ruwan

HKA: The interview encompasses a series of questions, and I want to excuse myself in advance if I seem nosy or brazen, it is not my intention, but just for the purpose of this interview to help us understand the potential impacts to cultural practices and economy as a result of the proposed project. The information you provide will be used to help develop possible mitigation measures to offset the impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview.

HKA: I would like to ask you, what village do you come from, and your proximity to the airport, seaport or project area?

RR: I'm from this village

HKA: And what is this village?

RR: Ngolog.

HKA: What is your role in the village? Are you a farmer?

RR: Yes, I usually do everyday farming. Work around the village participates in community work.

HKA: What I'm going to do is start with economy first.

HKA: Will the proposed projects impact sources of income for individuals, families, or community groups including [during and post-construction]? One example is betel nut runners. If the United Airlines cargo flight changes to another night, will that have an impact on economic resources?

RR: What I would say is, it would affect and also benefit our life here it would help us for good transportation to be done and also affect our vegetations.

HKA: Are there tourist sites that will be impacted by construction (e.g., dive sites, WWII sites, mangrove swamps, fruit bat habitats)?

RR: As I said, that is true a lot will affect us here, but a lot of people want to be modernized so I would say it's a good thing ... our environment won't be as productive as before.

HKA: The environment won't be as productive as before, because people are leaving?

RR: No because of the smoke of the plane and the erosion but again to face problems like this in return we have something good.

HKA: You have told me some things about economic advantages; can you identify some economic advantages that might happen because of the project?

RR: Fishing around the area because of the erosion, local material around the mangrove won't be as productive as before and having seashells for our everyday life won't be as productive as before.

HKA: We are going to move to cultural protocol and stewardship. Who are the traditional leaders or custodians responsible for cultural sites in this area?

RR: The chief should be seen first then the chief will inform the community members in the village.

HKA: What is the proper protocol for visiting or working near these places? How can outsiders or visitors to Yap act in a way that demonstrates respect for these places?

RR: The chief in the village will come in agreement with the government to enter or work in a certain place.

HKA: Do you have any recommendations regarding site management or protection and development in these areas?

RR: Whatever the decision is made by the chief for whatever is going to be done in a certain place, the chief will talk with the people in the village to come to an agreement on what's going to be done.

HKA: Do the proposed projects at the airport and seaport have the potential to disrupt land inheritance traditions/practices?

RR: I cannot comment on that. People that have fishing grounds should be the ones to have a say on that.

HKA: Let's get into historic and Archaeological sites, What historic or archaeological places (e.g., *wunbey* [stone platforms], *rai* [stone currency], *fa'luw* [men's houses] *p'ebay* [canoe houses], *def* [platform

for the estate head's house], *tabinaw* [land estates], World War II (WWII) sites, roads, trails, and transportation routes are important to the community? What's important to you that I mentioned?

RR: Men's house, stone path, dancing platforms. I'm not sure if it will be affected because the project will be on the other side and my village is on the other side. It won't affect us as much as the other two villages.

HKA: Actually, all these are important right?

RR: Yes.

HKA: Let's move to food and subsistence resources. This taro here, do you guys harvest this taro? So, taro patches and traditional gardens are very important because they bring you food, right?

RR: Yes.

HKA: Are there medicinal plants or resources in the project area and is there knowledge or plants unique to proposed construction areas (including downstream and surrounding areas)? If it is acceptable to share, could you identify them?

RR: Yes, there are.

HKA: What plants are there?

RR: There are some by the seashore.

HKA: What are they? Can you name them?

RR: Like for example *chaath*, it bears small white fruit with white flowers.

HKA: I know what you're talking about. It's called *scaevola taccada*. That is the scientific name, that is a medicinal plant.

HKA: What part of it do you use?

RR: We use the stem and the leaves. People use it for diabetes.

HKA: How about the white fruit?

RR: Yes, we use it for the eyes too.

HKA: Do you know the leaves you can use to clean your diving masks?

RR: Yes, that's true.

HKA: So, you brought up the fish, have you gone fishing?

RR: Not nowadays but before yes.

HKA: So, you mentioned fish traps. Do you know where these fish traps are located?

RR: There are two fishing traps here, one is owned by Falanruw and one is for the men in the village located in Baen Muut owned by Lubuw ni Gaa'. This is what I know but I might be right.

HKA: How far is the water from here?

RR: Maybe two to three football fields down.

HKA: So, when you were still fishing, what kind of fish did you see?

RR: All kinds of fish.

HKA: Rabbit fish? *Atule* (big-eyed goggle-eyed scad or type of scad [*Selar crumenophthalmus*, *Trachurops crumenophthalmus*])?

RR: Yes, the *atule* comes in the mangrove down from my village once in a while to lay eggs and go.

HKA: Where do you guys have the fish trap?

RR: Yes.

HKA: So, do you guys have seaweed here?

RR: Yes, we do have.

HKA: Do you guys have water that goes into the ocean?

RR: Yes.

HKA: Do you guys have shrimps in the stream that goes down.

RR: Yes.

HKA: When you were fishing, did you see sea cucumbers before?

RR: Yes, plenty of them and many different kinds.

HKA: So, there's many kinds? How about shellfish?

RR: Yes, we do have.

HKA: And octopus?

RR: Yes.

HKA: How about crabs? Different kinds of crabs?

RR: Yes, land crab and mangroves.

HKA: When you are fishing do you see coconut crabs?

RR: Yes.

HKA: How should traditional fishing and gathering practices and locations be protected, and the knowledge associated with them preserved? Is it possible to map these areas as a mitigation measure?

RR: It is very important to preserve but if we want to be more modernized, we are going to lose some and gain some. I don't want to go against everything in this manner. We can help prevent erosion and flight schedule. It's good to teach our culture in the village, at home and in schools. It's good to teach the younger generations.

HKA: Are there sources of raw materials, like seagrass that are used to make specific kinds of fishing nets, that are unique to these areas and/or only available to some community members that are threatened by the proposed construction?

RR: Yes, it's called *ke'ef* (fishing style or type of material to make net for fishing). Long before they used to do this kind of fishing but not now.

HKA: The palms that make the roofing nipa (native palm [*Nypa fruitcans*]), do you think that there will be that in the project area? How do you think they should handle that?

RR: Protect them from erosion and sometimes when the seeds fall the water won't take them further away from where they are to grow. If it's possible for a certain place to be constructed and they have nipa, if there's a way to plant them somewhere and the others are killed it will be very good.

HKA: Now we are moving to religious sites and practices.

HKA: You might know this, are there any special names for the different winds and rain?

RR: Yes, there is *Nuw ni Sarbul*. I forgot what time of the year it is during the rainy season and during summer it's *Napan ei Ya'al*. We have two seasons wet and dry.

HKA: How might spiritual connections to ancestral practices be affected, interrupted, or damaged because of the proposed construction projects?

RR: Not that I know of.

HKA: Are there cultural places tied to myths, oral traditions, or community identity that needs recognition?

RR: Wuneda'ay Channel up to Gabach Channel on the south side is a fishing ground for the Gitam community. The reef is a fishing ground for the Mano'ol family. There's a big rock up on the reef next to Wuneda'ay Channel that when it's high tide you can still see it; it's called Malang Nu Mano'ol. This is owned by a family in Balabat.

HKA: What is the story about?

RR: People do fish in that area, but it's owned by the Mano'ol family. Nowadays people are fishing anywhere they want. Long before when people in Rumuu fish in that certain area and if someone meets them in the water it is a must that they should give the people in Rumuu all their fish but not nowadays. It's a tradition for the family fishing ground.

HKA: Is there a cultural, spiritual, and/or reverence for the mangrove here on Yap? Are there Yapese stories tied to the mangrove in your village/municipality? Would you be able to share that with us?

RR: If there is, I don't know. The *atule* comes into the mangrove through the Gabach Channel to lay their eggs then go. That's all I know about the mangroves here.

HKA: Within your lifetime, have you seen changes in the mangroves? Do you think this is related to development, climate change, or other causes?

RR: The tide is getting bigger nowadays. The stone path by the water in Binik that goes to Balabat you cannot walk there when it is high tide. The mangrove growth is not the same as before, maybe because of climate change. The ocean is killing the mangrove maybe because it's reaching a certain level that's not good for the mangrove and maybe also of erosion.

HKA: Have you seen the mangrove after storms, have you seen changes after the typhoon?

RR: There's a little change in the mangroves.

HKA: Have you used mangrove for local medicine?

RR: Maybe there is but I don't know any local medicine using mangrove, maybe some people.

HKA: Have you seen the flowers on the mangroves? Have you seen those flowers made into *nunuuw* (leis or garlands)?

RR: Yes, I've seen it before.

HKA: Let me get to the last section and it's kind of important and sensitive. Are there known graves traditional or modern within or near the project area?

RR: I don't know of any on the seaport project but the airport there is for the people of Yinuf.

HKA: Is there anything you want to discuss before we end?

RR: There are some people I heard from them that the water will get rougher by the shore.

HKA: So, your concern about that?

RR: As I said before if you get something affected you will get something better in return.

HKA: Anything else you want to discuss?

RR: No, Thank you very much!

HKA: I thank you for your time, because time is precious.

ORAL HISTORY INTERVIEW

With

Linda Muut Teteth [LMT]

October 27, 2025

Anti-Human Trafficking Office, Yap Island, Federated States of Micronesia [FSM]

By

Hannah Kaumakamanōkalanipō Anae [HKA]

And

Sarphina Gudiiy [SG]

Recording file name: <IA202449_(1 of 2)_Linda Muut Teteth_SG_2025-10-27.wav>,

<IA202449_(2 of 2)_Linda Muut Teteth_SG_2025-10-27.wav>

The interview took place indoors at the Anti-Human Trafficking Office, Yap Island, Federated States of Micronesia [FSM]. The recording has two parts and includes a couple of interruptions that have been removed from the transcriptions.

HKA: Greetings. Today is October 27th, 2025. I am Hannah Kaumakamanōkalanipō Anae beside me is Sarphina Gudiiy and she is our field assistant and translator. We are on the main island of Yap, one of the Federated States of Micronesia. I would like to say, I represent International Archaeology, LLC. Our purpose here is to conduct oral interviews for the proposed Yap international Airport and Seaport Improvements projects. We are here with Linda, and Linda can you please state your full name.

LMT: My name is Linda Muut Teteth. Say where I work?

HKA: Yes.

LMT: And I am working with the Anti-Human Trafficking Office, field office here in Yap, and our main office is in Pohnpei.

HKA: Thank you. Do I have your permission to record this interview?

LMT: Yes, you have my permission.

HKA: The interview encompasses a series of questions, and I want to excuse myself in advance if I seem nosy or brazen, it is not my intention, but just for the purpose of this interview to help us understand the potential impacts to cultural practices and economy as a result of the proposed project. The information you provide will be used to help develop possible mitigation measures to offset the impacts of construction ... of any issues or concerns that may or may not arise from the proposed project. So let us begin the interview. Linda, I would like to ask you, what village do you come from, and your proximity to the airport, seaport or project area?

LMT: So, I'm from Yinuf, Rull and it's actually where the airport is located. I lived right by the high school area, COM area in terms of how far, I don't know the measurement but it's not far. The plane usually comes right over our house to land and that's how close it is. How far it's from the seaport, it's quite a while from that area to where the seaport is.

HKA: What is your role in your village?

LMT: As a member of the Yinuf community and as a woman of that village, it's a very small community but we don't have as many elderly women now like back in the days there. Usually the ones that took a lead in activities around the village when it comes to cleaning, maybe cooking type of activity if there's a funeral, anything that involves our children the women are the ones that would take a lead; and as of right now I could say I'm one of the older woman in there, although I'm not ... that I could make a decision, but I'm an active member in my community.

HKA: Can you give me an overview of your work here?

LMT: Okay, so I work as an assistant coordinator for the Anti Human Trafficking Office. It's under the Department of Justice that's with the National Government. It's quite new. It was established three almost four years ago. A lot of the work that we do here focuses on education and awareness on human trafficking. Although it has not been ... I cannot say that we don't have issues around human

trafficking but there are things that could potentially lead to a human trafficking case. Our office here is more of a field office where we do not have any cases yet. We do have a shelter in the office, half of the office is a shelter that if we do have a case, we could house victims of human trafficking.

HKA: What was a contributing factor to your choice of career?

LMT: So that's a long story but I'll keep it short. I used to work with the state government it's called the gender support office, and it advocates for women, youth, elderly, and disabled. The office that I used to work for a lot of them focus on legislation and policy so when there was an opening here, I wanted to apply because you know I'm an advocate of those things around human rights, genders, women, children and that is why I applied for the job.

HKA: Is there any concern about the project that may arise or affect the work that you do?

LMT: I believe so. I know with the project coming into Yap a lot more people are coming in, with a lot more people that there are going to be a lot of issues, concerns, and crimes. But I do believe that with those increase in people coming in along with those opportunities. And I look at opportunities rather than really looking at the negative impact. I do support the DOD (Department of Defense) project, because with where Yap stands now along with the labor, the working age has migrated and doesn't have that. I want the project to come. I think it's a good opportunity for the island of Yap and for the people.

HKA: What issue do you think may arise regarding the work you do?

LM: Sorry I kind of miss the question you were asking at first. I think in terms of human trafficking there could potentially be some. The foreign people coming in. I'm hoping that with the work that we do in education and awareness, we could help our community be aware when those problems do arise if it comes up.

HKA: What would you suggest for the DOD or the people of these companies coming in? What measures would you suggest for them to take to prevent anything from happening?

LMT: I think with the people coming down, they know the laws. We do have the FSM laws on human trafficking and making sure that they are aware of them. I'm sure they are. They may not take advantage because we are island people, like we don't know as much. And have the respect that we do have that law in place for work and the work that I'm in, making sure that they support and advocate. I hope that answers the question you were asking.

HKA: So, I'm going to move into the seven subjects I talked about earlier. There would be these questions that would overlap.

LMT: Okay!

HKA: Thank you!

HKA: So, the first series of questions is, would the proposed project impact sources of income or individual, families, or community including during and construction. One example is betelnut runners. If there is an airline, the cargo flight changes from one flight night. What will impact economic resources?

LMT: Yes, it would.

HKA: That is just an example. You might have yours.

LMT: Okay, like cease the flight, is that what you're saying.

HKA: If the betelnut runners flight night changes to another night would that impact economic resources for betelnut runners if the flight change to another night,

LMT: If the flight changes to another night maybe not as much. I think for as long as it goes out because that's our only option like we don't have any other option. If it changes from Wednesday morning to Thursday, you know, there's still that going out. I don't think that much knowing that there's still rather than knowing ceasing ... no outgoing flight.

HKA: So, are there tourist sites that will be impacted by construction such as dive sites, WWII sites, mangroves, swamps, fruit bat habitats?

LMT: From that area I'm from, we don't have that many mangrove sites right by the airport. I know studies from Margie Falanruw, that it has been in one of those historical sites but it's a big mangrove site by the airport. I'm sure it can be impacted. We do have a road around the two villages right next to the airport. We do have a pledge in the village that we could restore the stone walkway down to that village. I think there would be an impact if the flow of the water runoff comes down that way to the mangrove as well. We have taro patches. These taro patches, people have not been going there for a while, not sure if there's still taro patches. I hope that we can go back and restore those taro patches. But honestly, I think there's no taro patch in there. If only we could save those it would be good because a lot of the people own those taro patches right across from the gate to the airport. That's the area I'm talking about.

HKA: There's the dive site, World War II site, mangrove, and fruit bats habitat.

LMT: I don't know much about fruit bats. I do see them a lot in that area because we have a lot of pandanus trees there and they are around that savannah area. I've seen a decrease in bats compared to when I was a lot younger and I think a lot of it has to do with the increase in cars and the noise. Maybe not as many trees, you know, the fruit they eat ... I haven't seen as many of those fruit trees.

HKA: The pandanus trees?

LMT: Yes, Pandanus tree, there are not as many as when I was younger so it could be from climate change too. I don't know but there are not as many fruit bats as there used to be when I was younger.

HKA: Can you identify any economic advantage that could happen because of the project?

LMT: Economic advantages, I think there are a lot of job opportunities. I'm sure there are a lot of skills to be passed on to the local communities, a lot of them are I guess not educated and don't have hands on training. Those are some really good opportunities for the people of Yap.

HKA: Who are traditional leaders or consultants? Okay, we are moving into cultural protocol and stewardship. Who are the traditional leaders or consultants responsible for cultural sites?

LMT: I think for YInuf the airport expansion, I think a lot of those custodians are with the community members. It could be different from somebody else, but I think as a YInuf community, we all have a way in terms of protecting our lands, protecting its habitat as well as the chief of that village and of the municipality that they represent. I think that's it.

HKA: What is the proper protocol for visiting or working near places? How can outsiders or visitors enter Yap and act in a way that demonstrates respect to those places?

LMT: Yeah, I think as long as the word is shared to the chief of our village it should be okay.

HKA: How should findings of photographs, maps, reports be shared to the community?

LMT: Like hard copies you mean? Yeah, I think with Yapese people things like this with pictures for those that can't speak English, we can give them in Yapese, and a lot of people here speak English, I think we're more visual people.

HKA: And may we record place names of the areas that might be impacted like landmarks, fishing location, reefs, coral reefs?

LMT: How should you do what? I'm sorry I didn't get the question.

HKA: May we record the place name of areas that might be impacted like land names, fishing location, reefs and coral reefs?

LMT: How could that be recorded?

HKA: May we record the place name of those areas. I mean I wouldn't want to give it all the fish sites but is it okay to record the names?

LMT: I think so, it's actually a great idea to record those because we're slowly losing a lot of traditions, the culture of course, changes over time but a lot of the traditions have been lost. I don't know much ... we have that information so I think recording those should be a good idea.

HKA: Will changes you said impact cultural practices from land and from the water like the visual, you think the project will disrupt the scenery?

LMT: I think so, it would be disruptive but to me you know sometimes if you want benefit for something, some things are going to be sacrificed. I think the ones that we could at least keep making sure that there's a part of us to instill, to instill in our children and youth. Yes, but I know that we're going to lose and gain some. It's the reality of everything in the world.

HKA: We seek community guidance on how to minimize cultural impact. Who would decide that? Is that decided by each estate or by men's groups and or women's groups?

LMT: I think everybody, a lot of decisions are made by the men here on Yap, but I think back in the days a lot of the decisions that men make are not something the women go without contributing to those. The life that we live now, we know the modern life a lot of the culture was losing. I think everyone should have a say but at the end of the day the men do make those decisions. The chiefs but then I do know they make sure that everyone is aware and the majority vote okay, this is the benefit of everybody.

HKA: Do you have any recommendations regarding site management or protection and development in the area?

LMT: I think so if there could be some protection. I know we have not touched upon burial sites but I'm going to go ahead and mention something about the burial because my family burial site is next to Terry Leewes house next to GPPC. I was involved in the EIS meetings prior to couple few months no one really brought up burial sites, but I really do want to share my concerns. Will those burial sites be affected, and if it's going to be, how are we going to protect them? My dad is buried there, his dad and a lot of family members. That's where we bury our family. Sorry, I lost track of the question you were asking. Protection like something to protect?

HKA: Yeah, It's about site management. Do you have recommendations regarding management or protection and developments in the area?

LMT: Yeah, as long as we can have something in place where those areas couldn't be touched because it's right next to the airport you know in terms of safety zone. Is it in the safety zone? I know one of those points mentioned in those meetings, are those the exact point? Expansion is going to be you know in terms of where the airport is and how far out because if we're expanding, then the safety zone is kind of pushing toward those sites my father was buried and probably close to where my kids and I are living. I do understand the expansion towards the western side of the existing airport. So maybe there won't be much impact because I'm kind of toward the end of the runway where the burial site is, so my concern is if those could be protected.

HKA: If they have to be moved, what would you say about that?

LMT: I would be very against those that is truly bad for us here in Yap. and I've actually talked about it with my brothers upon those issues with you know taking our family out of those graves. Nobody likes the idea, but I think, if we could somehow mediate because we don't know much about relocation of burial grounds. How is that going to be addressed? How are they going to help our community move a whole burial site to where? We wouldn't want it to happen, but I think of what's going on now, if it's something ... that's if it needs to be moved, we might see what options the DOD has for us, and what area could be located. I don't want to relocate my father.

HKA: I understand.

LMT: But I know that if he was alive ... and the project is here today ... what options do we have that we could mediate those burial grounds into a safe place where it could be protected, and make sure that it's their burial ground that they could go to.

HKA: How can those graves be identified, marked and protected?

LMT: How could those graves be marked and protected? I don't know, put a fence in that area to avoid relocation. Could these be in a fenced area or have some kind of boundary?

HKA: Are the graves marked right now?

LMT: They are marked. Yeah, it's in a concrete grave. Those are the ones that I guess 10 to 20 years ago, almost 20 years ago, could be identified but there are several that there's no names on them.

HKA: So, your dad's name on the grave?

LMT: Yes, we do. Not just speaking for my dad because there are other burial sites for other people back in the day. If it's something that needs to be moved this is the decision of our village and the chief that probably moves them individually, and I don't want to do that, but if it has to come down to it, I think our community sees options that we do have in terms of relocation. I don't want that to happen.

HKA: Are there cultural protocols for visiting, documenting, or discussing graves?

LMT: The existing ones?

HKA: Do you guys have any cultural protocol before visiting a grave?

LMT: There might be, to me, no knowledge of those who like doing some kind of code or signal. I don't know, but I know it's against going to a grave unexpectedly, but I don't know any existing protocol.

HKA: Who will be notified if a new or advertent grave is discovered?

LMT: In that area I think the chief. He knows the site. I'm sure most likely someone will call my brother because everyone on the island knows our grave site. Who would be notified? Probably our family members and those in the community.

HKA: Is there anything else you want to speak about graves and mortuary areas before we leave that subject. That's what we are on now.

LMT: Yeah, I think my biggest concern which I wasn't able to say during the meeting with the EIS was concern for burial sites. That's my biggest issue with the expansion of the airport because my dad and uncle are buried there. I could see a possibility that it could be protected if not how is DOD going to address mitigation processing on where to relocate those burial sites. In terms of the Yap state law on burial grounds I know that if it's marked it couldn't be touched. I could be wrong in saying that, but I know that it's supposed to be protected.

HKA: The proposed project at the airport and seaport have potential to disrupt land inheritance tradition and practices? Are there measures that will offset cultural disruption. Is there a potential in disrupting the land inheritance tradition practices?

LMT: Yes of course, a lot of this area is around. When I refer to this it's around the airport not so much here because I'm not from that area. But yes, I know there's going to be a lot of disruption. In fact, there's a lot of people claiming land that has not been surveyed or being issued the title to. I think those are causing a lot of issues within our community however, I know they are trying to resolve those issues with land inheritance. And I said land inheritance because people are selling their land rather than leasing to DOD projects. Things that are temporary so that they keep their land within their family so a lot of disruption. Yes, people are not seeing value in their own land and selling it. Selling to people that are not from that village becomes an issue because people from Rumung own land in my village. I don't know the right word in Yap. For example, if I need to go to her village, I have to have a reason to go, I cannot just go sightseeing as people from Rumung have been in Yinuf. What are they doing here and so with the DOD project? It's causing people in my own village to sell their identity to other people from another village because they have money. And so, these people from Rumung own the land in Yinuf and of course their owning it to lease it to DOD, because they are a lot more educated and a lot more aware verses people in our village where they needed that money instantly but it's very temporary. So, I could see that it's actually happening now but then again you know a lot of the projects always have that disadvantage and advantage to it.

HKA: So, we're going to move to a historical and archaeological site which is more of your traditional places or places of your ancestors. What historical and archaeological sites such as the *wunbey* or stone platforms, the *ra'ay* (stone money, also known as *rai*), *fa'luw* men's houses, and the canoe houses and the platform for the estate headhouses, the land estates or *tabinaw*, WWII sites, road

trails—transportation are important to the community; can you tell me which are the archaeological places are important to the community that I mentioned?

LMT: I think all of those are important to the community but I'm not an expert or know anything about archaeological sites. I do know the WWII sites, a lot of those is located in the area probably not in my village but I know there are some in Lamaer area, Luweech area, and little bit south side of Yinuf. I think those should be protected because there's a lot of Americans and Japanese that come to Yap to visit before they die to actually look at those; and I think some of them actually pack some of those planes and ship them to the state; and I think those are very important historical sites for the history of Yap. I think those should be protected. Am I in line with the question?

Yes, we also have stone house platforms or *wunbey*, we're talking about the seaport. There's not so many, it is in our village but down towards the water. I don't think it's going to impact the *wunbeys*, men's houses, woman's house which it doesn't have an existing house on those *wunbey*. We're hoping to get those later on with the DOD support. But with the stone path to come along actually the pave road has cut one of those stone paths going to Terry Leewes house where the grave site is, but those decisions were made long time ago ... agreed access to the airport. That's the only paved road in the area. The houses ... a lot of people are moving toward the uphill area because its closer to the water and electric power. But in our village, I don't think the *wunbey* would be affected as much, just the WWII sites.

HKA: So, we are going to move to food and subsistence resources.

LMT: Okay.

HKA: Which areas are important for taro patches and transitional gardening? Is there information about the floating taro patch that can be preserved or shared and the patches be relocated?

LMT: I've heard about the floating taro patch. We don't have those but to be honest with you, to be honest with the project because as I mentioned earlier a lot of the way that we live now, not a lot of people go taro patching. I buy my taro from the store because I work verses when back in the day a lot of activity is in the taro patch out of the taro patch that are actively going in are the taro patch next to

the house. The taro patch that we do have, that is from our home is from our family in the jungle every now and then we go to. Yes, I think those should be protected. There was one once where I was telling you about, the one across from the airport. I don't even think there is still taro in there. Should it be protected, yes, and I'm going to be very honest. Are we going to protect those taro patches, because are we going to those taro patches? Okay, yes maybe we could encourage people to go. But yes, there are taro patches next to the airport. With the project, is it going to affect those taro patches, probably if you put a taro in there, it's not going to grow because there's so many oil and tar and whatever would grow in there is going to cause that run off; and the little that I know about taro patch they need to have that flow in there with the run off the ecosystem that needs to flow. Maintaining those taro patches, yes, we could encourage those in the community to maintain. Me, I cannot maintain a taro patch because I have four kids, and I have to go to work, that's the reality and I'm the only one speaking. I'm sure other people could relate to me as well, the elderly women that would have a say yes, are they going to the taro patch? No. I'm going to be very honest and realistic. We're going to lose taro patches without the DOD project. If we can protect it, yeah, let's protect a couple. Women go to the taro patch a long time ago. Excuse me, because I'm going to be very honest and I'm talking as a community member.

HKA: Are there medicinal plants or resources in the project area and is there knowledge or plants unique in the proposed construction areas? If it is acceptable to share, could you identify them? Plants for medicine.

LMT: My aunt used some of her local medicine a long time ago in those areas. There is a plant that is a vine we call it where the rat pee in it. Those plants are usually located in the savannah areas, at least next to the airport, so yes, there are plants there that are used for local medicine and remedies. I think those need to be taken care of, but then again are we going to take care of them because there are people that are going to use them? Medicine is for families and if we are not obedient it's not going to be passed down to you. My family has their own local medicine, I don't know mine.

HKA: Is it to be taught how to constantly use it?

LMT: Constantly use it and when you use it there are things you need to abide by, there are things you cannot eat, things you cannot do. Do we need to do that to preserve it for a reason so we continue to look at those herbal plants to save it so maybe the family could use it for the future to get an

economical basis so they can have money because they have local medicine. Maybe yes, they need to be protected.

HKA: Are there fish weir, fishpond, weirs that were present or no longer present, fishponds, reef areas, mangroves or forging grounds that are culturally significant? How often are these areas visited and how will you be able to continue traditional practices if areas are impacted or otherwise inaccessible.

LMT: So, we are in an area where I don't have much knowledge about fishing.

HKA: Fish weirs are areas where small fish hang around.

LMT: Like seaweed bed area?

HKA: Yeah

LMT: Fishponds, I think it's a good idea to protect them. I think I would advocate for those to be protected.

HKA: How would people be able to continue traditional practices if this area is impacted or inaccessible? Should people advocate for accessibility? What would you suggest?

LMT: Yeah, we should advocate for accessibility to those I don't know what I'm actually talking about but if the project is going to happen and, in those areas, can be protected and making sure people have access to those areas.

HKA: What kind of fish, octopus, crab, marine shellfish, seaweed, sea cucumber or marine resources can be found along the shores of the project area? Do you know anything about that?

LMT: I do not know but I am sure there is around the mangrove area I heard from Margie Falanruw from some of our meetings that fish lay their eggs, produce and grow. Sea cucumbers I don't know. We have those in the village down at the ocean but then it's not as many now.

HKA: How should traditional fishing gathering practices and location be protected and the knowledge associated with them preserved? Is it possible to map these areas as mitigation measures?

LMT: I know that with the MPA we do have existing ones we don't have one down in our village but then again what they're doing is marking those areas not to fish in and it limits the community members because they cannot fish in those areas, and they turn and steal the fish. How are we going to protect the areas that we have where the project is, I'm not sure because not a lot of people fish now a lot of people that fish now take place outside the reef. Again, the lifestyle that we live now, people don't make time to go fishing because they have money and they buy their fish in the store. Occasionally they do that, maybe because we are from the island. Yes, I think it's good to protect those areas, maybe to go out to fish.

HKA: Are there freshwater streams, or ponds flowing to the ocean within the project area? How do we protect these valuable water resources? What other resources are there within these streams—fish, shrimp, crab.?

LMT: Yeah, I think they do have shrimp right next to the airport we used to go get shrimp there before when I was younger, I can't go there now but I know there's people that still go there to get the shrimps and it's from that runoff from the airport down to the ocean. I know there's the taro patch there that plays a role too. When they do the first airport, they make sure that there's that flow, so only shrimp is I'm aware of. Maybe there's some fish there, maybe tilapia which I think they should kill off.

HKA: That's invasive

LMT: Yeah, and I think they're getting out of control in those little streams that come along the airport area. Yes, only shrimp and maybe not as much now.

HKA: Are there sources of raw materials, like seagrass that are used to make specific kinds of fishing nets, that are unique to these areas and/or only available to some community members that are threatened by the proposed construction?

LMT: No, I don't think there's anybody that does that, maybe they did back in the days and if we're going to protect it, I don't know if there's knowledge still available and I'm being honest. I know with the fishing net people used coconut husks, that's the one they used to make the fishing net, maybe that knowledge does exist now with the old people but with the sea grass not too sure.

HKA: So now we're going to get into religion and practice. Are there churches, shrines, or ritual areas that could be affected by project activities?

LMT: Except for the burial sites but for religious and shrines but in that area next to the airport I don't think so someone could correct me. I don't think there's one.

HKA: Are there special names of the different rains and the winds within the project area?

LMT: I cannot say because I don't know.

HKA: What types of construction or noise would be disruptive?

LMT: Yeah, I think the noise would be the jet flying the airport like sonic sound. Those sounds would be noise pollution to us because we are right next to the airport but again it's something I'm not going to die of, maybe knowing a schedule to help by putting ear plugs in, I'm sorry those are just my concerns and those are very loud it probably causes ear problems. I think with the DOD projects and the meetings they might have a schedule and people could mitigate around. Those are sound pollutants I've heard about. I'm sorry I'm being realistic but it's going to be an issue. Yes, the noise is going to be loud.

HKA: We are going to talk about mangroves now. Is there a cultural, spiritual, and/or reverence for the mangrove here on Yap? Are there Yapese stories tied to the mangrove in your village/municipality? Would you be able to share that with us?

LMT: I don't know any stories tied to those mangroves. I think that's the biggest mangrove here in Yap right in Galil. The idea of having mangroves on land helps with the storms, maybe put them in a sanctuary to protect the land and some medicine from the mangroves and some herbals.

HKA: Over your lifetime have you noticed changes in how the mangrove filters run off or protect the land during stormy season? If you recall any significant changes to the mangrove, does it take a long time for the mangrove to recover?

LMT: I don't know about the recovery part. I don't know how long it will take to recover, but I have seen the impact in areas. When there is mangrove, you cannot see sand. They grow in muddy areas, however the mangrove that I see around sandy areas because of the dredging of the sand, it looks sick like its anorexic; and I think it's because of the ecosystem, the sand taken out and the seawall that they put around those areas, it affects the ecosystem life of that mangrove tree growing. In this area where the mangrove is, I don't have that much knowledge but what I've seen is, I think you have to kind of trim it so the water can go in and out cause people are not maintaining and with those mangrove and with the storms, there's ice box, like foreign items stuck in this mangrove and it restricts them with the high tide and the low tide so the mangrove kind of look not healthy to me. When I was lot younger, I saw the mangrove, where there's activities in that area. I mean a lot of kids are in school there on Wi-Fi, they're not in the ocean swimming, parents are too busy working, they put them on Wi-Fi, and they are not in the mangrove swimming. So yes, the mangroves are being affected and changed, and people are not maintaining. And yes, with the impact, with the DOD, it will affect them, so I think somehow helping them to save the ones that we still have. I hope that answer what you were asking.

HKA: Yes, it did! Is mangrove used for medicine?

LMT: I do know because my aunt local medicine her local medicine is very hard to find because some of them are in the village jungle some of them are in the savannah area and some are in the mangrove area

HKA: Specific type of mangrove because there are different types of mangroves.

LMT: I don't know, all I know is those in my village because that's where she goes.

HKA: What does she use it for?

LMT: Local medicine supposedly for cancer is a medicine for whatever disease in your body it comes out of, sort of like spitting out whatever disease you have so cancer would fall under that type of medicine for cure and it's not like you have cancer and you take that medicine it goes away. The thing for local medicine is taking it to prevent that from coming. Yes, one of those medicines is in that mangrove and one is in that flower of the pandanus tree that goes up. Before it becomes some fruit it's a flower.

HKA: Is that the sweet, sweet flower?

LMT: Probably because it's kind of yellow.

HKA: The flowers of the mangrove that they use to make *nunuuw* leis. Do you guys do that?

LMT: No, we don't, maybe a long time ago.

HKA: Is there anything you want to discuss?

LMT: No, I think my biggest concern for this DOD project is the burial sites because my dad is buried there and my mom is still alive and we would want our mom to be with our dad not just speaking for myself, but I'm sure other families are using the same burial site on their behalf; and if DOD could protect it, it we would really like that; or what options would be provided to the families like relocation. I don't want to say relocation but then just being realistic of what's happening in this world. If those could be addressed, given families options on how those could be relocated if it will be, but I like it to be there. Yeah, this is the only comment I wanted to share.

HKA: Kamagar!

LMT: Dairy, you're welcome.

LMT: Thank you!'

HKA: Thank You!

APPENDIX C: INTERVIEW QUESTIONS

The IA ethnographers will use the following questions to structure the interviews, though these questions may act more as prompts for the interview consultants to share relevant, meaningful, or appropriate information. The questions are organized into seven topics, which may have a degree of overlap.

- **Economy**

1. How will the proposed projects impact economies in Rull? Can we discuss sources of income for individuals, families, or community groups (including during and post-construction)? One example is betel nut runners. If the United Airlines cargo flight changes to another night, will that impact economic resources?
2. Are there tourist sites in Rull that will be impacted by construction (e.g., dive sites, WWII sites, mangrove swamps, fruit bat habitats)? Will those sites be inaccessible or will the plane wrecks need to be relocated?
3. Can you identify any economic advantages that might happen because of the projects?

- **Cultural Protocols & Stewardship**

1. Who are the traditional leaders or custodians responsible for cultural sites in this area?
2. What is the proper protocol for visiting or working near these places? How can outsiders or visitors to Yap act in a way that demonstrates respect for these places?
3. How should findings (photographs, maps, reports) be shared with the community?
4. May we record the place names of the areas that might be impacted (land names, fishing locations, coral reefs)?
5. Will changes in the viewshed impact cultural practices (from land and from the water)?
6. We seek the community's guidance on how to minimize cultural impacts. Who would decide that? Is that decided by each estate or by men's group/women's group? (avoidance, relocation, reburial, compensation, or ceremonies)?
7. Do you have any recommendations regarding site management or protection and development in the areas?
8. Do the proposed projects at the airport and seaport have the potential to disrupt land inheritance traditions/practices? Are there measures that can be included to mitigate measures that will offset potential disruptions?

- **Historic and Archaeological Sites**

1. What historic or archaeological places (e.g., *wunbey* [stone platforms], *rai* [stone currency], *fa'luw* [men's houses] *p'ebay* [canoe houses], *def* [platform for the estate head's house], *tabinaw* [land estates], World War II (WWII) sites, roads, trails, and transportation routes are important to the community?
2. Are there traditional names or stories tied to these sites that should be acknowledged?

3. How should these sites be documented (written description, photos, oral histories)?
4. If the *wunbey* (stone platform) or *rai* (stone currency) have to be relocated, who are the people to be contacted? Who would be rebuilding and/or moving the *wunbey* and *rai*? What are the appropriate protocols necessary for relocation? What location would be recommended?

- **Food & Subsistence Resources**

1. Which areas are important for taro patches or traditional gardens? Is there information about the floating taro patches that can be preserved or shared? Can the patches be relocated?
2. Are there medicinal plants or resources in the project area and is there knowledge or plants unique to proposed construction areas (including downstream and surrounding areas)? If it is acceptable to share, could you identify them?
3. Are there fish weirs (present or no longer present), fishponds, reef areas, mangroves, or foraging grounds that are culturally significant? How often are these areas visited? How will you be able to continue traditional practices if these areas are impacted or otherwise inaccessible?
4. What kinds of fish, octopus, crab, marine shellfish, seaweed, sea cucumber, or other marine resources can be found along the shores of the project area?
5. How should traditional fishing and gathering practices and locations be protected and the knowledge associated with them preserved? Is it possible to map these areas as a mitigation measure?
6. How should access to these areas be maintained during project activities?
7. Are there freshwater streams, ponds, or rivers flowing to the ocean within the project area? How do we protect these valuable resources? What other resources are there within these streams—fish, shrimp, crab, etc.?
8. Are there sources of raw materials, like seagrass that are used to make specific kinds of fishing nets, that are unique to these areas and/or only available to some community members that are threatened by the proposed construction?

- **Religious Sites & Practices**

1. Are there churches, shrines, or ritual areas that could be affected by project activities?
2. How are these places used in daily or seasonal cycles?
3. Are there special names of the different rains and the winds within the project area?
4. What protections are needed during ceremonies or religious observances?
5. What types of construction or noise would be disruptive?

6. How might the spiritual connections to ancestral practices be affected, interrupted, or damaged because of the proposed construction projects?

- **Traditional Cultural Practices**

1. Are there cultural places tied to myths, oral traditions, or community identity that need recognition?
2. Are there taboo areas or places restricted by clan lineage or gender?
3. What are the rules of accessing, photographing, or speaking about these sites?
4. Who are the appropriate custodians or spokesperson for each site?
5. Are there raw materials like green schist still extracted from these areas for *chomog* (traditional structures) or wood and thatch for *fā'luw* (men's meeting house)?
6. Is there a cultural, spiritual, and/or reverence for the mangrove here on Yap? Are there Yapese stories tied to the mangrove in your village/municipality? Would you be able to share that with us?
7. Within your lifetime, have you seen changes in the mangroves? Do you think this is related to development, climate change, or other causes? What effects did it have on the ocean, freshwater, or other plants and animals (like the coral, crabs, fish, seaweed, sea cucumber, snails, and/or bats)? *Note: sea cucumber and coral feed on the microorganisms attracted by the mangrove's bio matter).
8. Over your lifetime have you noticed changes in how the mangrove filters runoff or protects the land during stormy season? If you recall any significant changes to the mangrove, does it take a long time for the mangrove to recover?
9. Are there fish living in the mangrove that help to cut down the mosquito populations?
10. Is mangrove used for medicine? For example, skin disorders (boils and sores), headaches, ulcers, and diarrhea? How is it prepared (bark infusions, ash--topical medicine and/or digested medicine)?
11. Noticing the many kinds of *nunuw* on Yap, is the flower of the mangrove used for making *nunuw*? Was it used throughout history? Do these flowers have a special meaning or are only collected from certain areas depending on the use or recipient?

- **Graves and Mortuary Areas**

1. Are there known graves (traditional or modern) within or near the project area?
2. How should graves be identified, marked, and protected?
3. Are there cultural protocols for visiting, documenting, or discussing graves?
4. Who must be notified if a new or inadvertent grave is discovered?

