

# NDPBA PALAU STATE PROFILES

SUBNATIONAL ASSESSMENT RESULTS



# PALAU AIMELIIK

# NDPBA SUBNATIONAL PROFILE



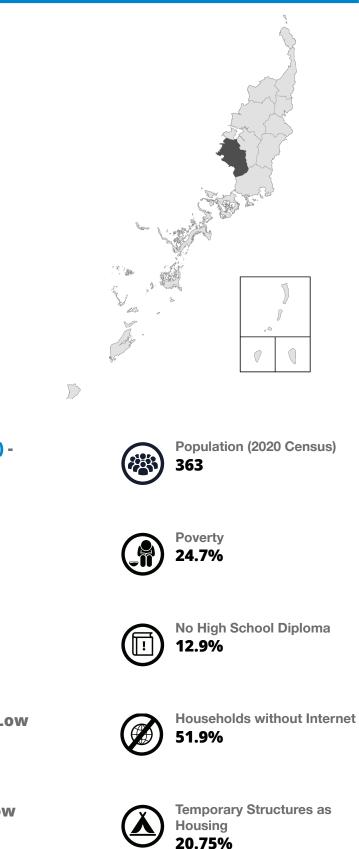
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: MONGAMI** 

Area: 14 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Low Score: 0.407 • Rank: 11/16



RESILIENCE (R) - High Score: 0.634 • Rank: 4/16



MULTI-HAZARD EXPOSURE (MHE) - Low Score: 0.489 • Rank: 9/16



VULNERABILITY (V) - Very Low Score: 0.200 • Rank: 13/16



2

COPING CAPACITY (CC) - Low Score: 0.467 • Rank: 9/16

PDC Global



**RANK: 9 / 16 STATES** SCORE: 0.489



Raw MHE 0.533

**Relative MHE** 0.444

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 21.4%

**~**78 \$3.85 Million

**Critical Infrastructure Exposed:** 25.9%



Storm Surge + Sea Level Rise 28.1%

\$3.85 Million **Critical Infrastructure Exposed:** 

51.9%

**102** 



**Storm Surge** 1.2%



**Critical Infrastructure Exposed:** 5.6%



**Tropical Cyclone Wind** 100%

**363** 

\$8.30 Million

**Critical Infrastructure Exposed:** 100%

Tsunami



**Critical Infrastructure Exposed:** 5.6%





**Critical Infrastructure Exposed:** 0.0%

Landslide



35.4%

**4** 128 \$4.44 Million

**Critical Infrastructure Exposed:** 46.3%

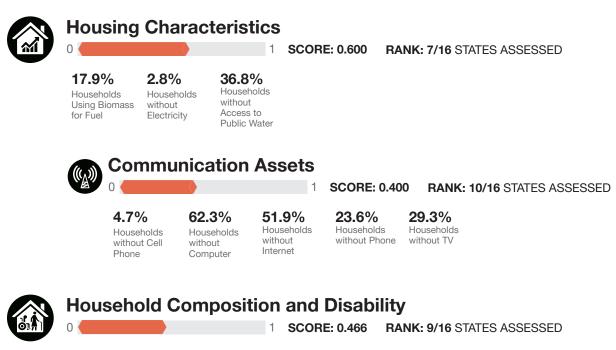




# VULNERABILITY (V)

#### RANK: 13 / 16 STATES ASSESSED **SCORE: 0.200**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Aimeliik is primarily driven by Housing Characteristics and Household Composition and Disability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



30.6% Percent Disabled

22.9% Percent Under 18 Years of Age

21.5% Households with Single Mother

1

93.3% Percent Over 65 Years of Age



#### Socioeconomic Status

\$12,267.08 Average Income (USD)

3.8% 12.9% Percent No Unemployment Rate High School Diploma

24.7%

SCORE: 0.266



#### Housing Type and Transportation

1 SCORE: 0.125

3.3 Median Number of Persons per Housing Unit

10.4% Percent of Households with No Vehicle

0.0% Population Living in Group Population Quarters

Institutionalized

20.8% 0.0% Households Housing Livina in Temporary

Structures

Structures with 10 or more Units

RANK: 12/16 STATES ASSESSED

RANK: 11/16 STATES ASSESSED

0

# COPING CAPACITY (CC)

RANK: 9 / 16 STATES ASSESSED SCORE: 0.467

RANK: 5/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



1 SCORE: 0.734



0

**Transportation Capacity** 

1.386Road Density<br/>(mi per square<br/>mi)Ma<br/>Dis<br/>Ko

Maximum Distance to Koror (mi)

**1.20** Average Distance to Port (mi)



# **RESILIENCE (R)**

#### RANK: 4 / 16 STATES ASSESSED SCORE: 0.634

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Housing Characteristics Household Composition and Disability



Socioeconomic Status



Emergency Services Capacity

6

# **KEY FACTORS INFLUENCING RESILIENCE**



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.

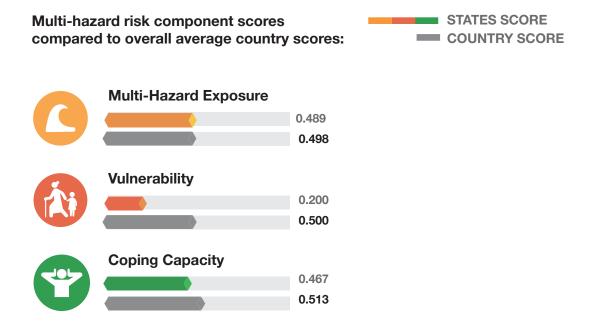
HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 9 / 16 STATES ASSESSED SCORE: 0.209
	Sea Level Rise + Storm Surge	RANK: 8 / 16 STATES ASSESSED SCORE: 0.207
	Storm Surge	RANK: 12 / 16 STATES ASSESSED SCORE: 0.050
Q	Tropical Cyclone Wind	RANK: 8 / 16 STATES ASSESSED SCORE: 0.122
-Mp-	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami	RANK: 12 / 16 STATES ASSESSED SCORE: 0.050
		RANK: 6 / 16 STATES ASSESSED SCORE: 0.272



# MULTI-HAZARD RISK (MHR)

11 / 16 RANK WITHIN STATES Score: 0.407

Aimeliik's score and ranking are due to Low Multi-hazard Exposure combined with Very Low Vulnerability and Low Coping Capacity scores.





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org





# NDPBA SUBNATIONAL PROFILE

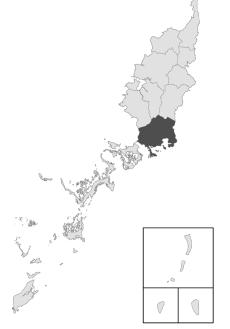


©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: NGETKIB** Area: 19 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) -Very Low** Score: 0.218 • Rank: 16/16

**RESILIENCE (R) - Very High** Score: 0.934 • Rank: 2/16



**MULTI-HAZARD EXPOSURE** (MHE) - Moderate Score: 0.522 • Rank: 7/16



**VULNERABILITY (V) - Very Low** Score: 0.066 • Rank: 15/16



**COPING CAPACITY (CC) - Very** High Score: 0.934 • Rank: 2/16



Population (2020 Census) 2,529



26.1%



No High School Diploma 11.2%



Households without Internet 43.9%



**Temporary Structures as** Housing 10.19%

MHE 0.522



**RANK: 7 / 16 STATES** SCORE: 0.522



Raw MHE 0.889

**Relative MHE** 0.155

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 10.4%



**Critical Infrastructure Exposed:** 13.8%



Storm Surge + Sea Level Rise 13.8%

**350** 

**Critical Infrastructure Exposed:** 15.0%



**Storm Surge** 6.6%

**167** 

**Critical Infrastructure Exposed:** 5.4%



**Tropical Cyclone Wind** 100%

2,529 \$170 Million

**Critical Infrastructure Exposed:** 100%





**Critical Infrastructure Exposed:** 5.4%

Earthquake 0.0%

**2** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%

Landslide



6.8%

**173** \$17.4 Million

**Critical Infrastructure Exposed:** 9.4%





# VULNERABILITY (V)

#### RANK: 15 / 16 STATES ASSESSED **SCORE: 0.066**

RANK: 15/16 STATES ASSESSED

RANK: 15/16 STATES ASSESSED

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Airai is primarily driven by Housing Type and Transportation and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.

SCORE: 0.066



#### Housing Characteristics

without

7.7% Households Using Biomass for Fuel

1.5% Households Electricity

3.5% Households without Access to Public Water

1



#### Communication Assets 1

3.7% Households without Cell Phone

43.9% 49.9% Households Households without without Internet Computer

1

1

25.9% 25.9% Households without Phone

SCORE: 0.066

Households without TV



#### Household Composition and Disability

SCORE: 0.000 RANK: 16/16 STATES ASSESSED

3.2% Percent Disabled

0 🔶

Ω

0

3.5

23.8% Percent Under 18 Years of Age

23.8% Households with Single Mother

86.6% Percent Over 65 Years of Age

SCORE: 0.000



#### Socioeconomic Status

\$13,864.52 Average Income (USD)

2.7% 11.2% Percent No Rate High School Diploma

Unemployment

**26.1**% Population Earning Less than \$5.50 per

day



14

#### Housing Type and Transportation

1 SCORE: 0.888

Median Number of Persons per Housing Unit

12.4% Percent of Households with No Vehicle

0.5% Population Living in Group Quarters

10.2% 0.5% Institutionalized Households Population Livina in Temporary

Structures

1.9% Housing Structures with 10 or more Units

RANK: 3/16 STATES ASSESSED

RANK: 16/16 STATES ASSESSED

# **COPING CAPACITY (CC)**

RANK: 2 / 16 STATES ASSESSED SCORE: 0.934

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



#### **Emergency Services Capacity**

1.06 Average Distance to Fire Station (mi) Shelter (mi)

0.63 Average Distance to

Average Distance to Health Facility (mi)

0.70

Average

Port (mi)

Distance to

1.11



0

#### **Transportation Capacity**

1.63 3 Road Density (mi per square mi)

Maximum Distance to Koror (mi)

SCORE: 0.934 1

1 SCORE: 0.867

RANK: 2/16 STATES ASSESSED

RANK: 3/16 STATES ASSESSED

**National Disaster Preparedness Baseline Assessment: Palau** 



# **RESILIENCE (R)**

#### RANK: 2 / 16 STATES ASSESSED SCORE: 0.934

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:



Housing Type and Transportation



Housing Characteristics







Transportation Capacity

### **KEY FACTORS INFLUENCING RESILIENCE**



#### Housing Type and Transportation

Populations living in temporary housing are more susceptible to damage and losses resulting from hazard impacts. In addition, higher density living situations such as multi-unit housing, populations residing in group living quarters or crowded housing increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access, and especially those living in isolated areas, are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.



#### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 14 / 16 STATES ASSESSED SCORE: 0.027
	Sea Level Rise + Storm Surge International Store	RANK: 15 / 16 STATES ASSESSED SCORE: 0.026
	Storm Surge	RANK: 13 / 16 STATES ASSESSED SCORE: 0.030
Q	Tropical Cyclone Wind	RANK: 13 / 16 STATES ASSESSED SCORE: 0.033
-Mp	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami 🔶	RANK: 13 / 16 STATES ASSESSED SCORE: 0.030
	Landslide	RANK: 12 / 16 STATES ASSESSED SCORE: 0.039

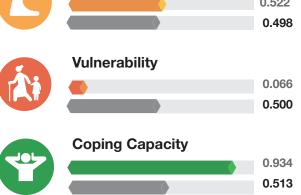


# **MULTI-HAZARD RISK (MHR)**

16 / 16 RANK WITHIN STATES Score: 0.218

Airai's score and ranking are due to Moderate Multi-hazard Exposure combined with Very Low Vulnerability and Very High Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores: STATES SCORE COUNTRY SCORE





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU ANGAUR

# NDPBA SUBNATIONAL PROFILE



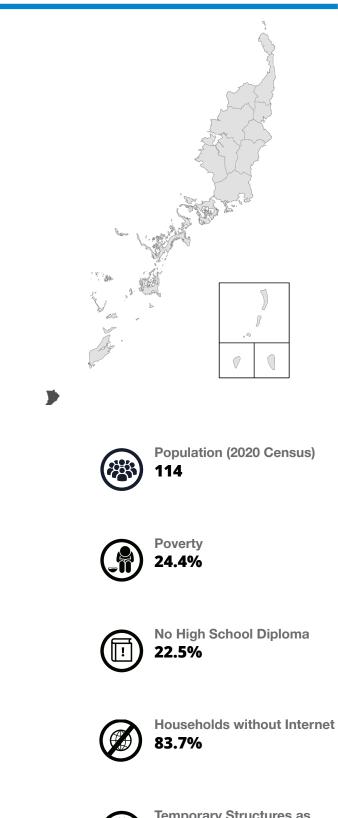
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: NGARAMASCH** 

Area: 3 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Low Score: 0.407 • Rank: 12/16



RESILIENCE (R) - High Score: 0.634 • Rank: 4/16



MULTI-HAZARD EXPOSURE (MHE) - Low Score: 0.489 • Rank: 9/16



VULNERABILITY (V) - Low Score: 0.400 • Rank: 10/16



COPING CAPACITY (CC) -Moderate Score: 0.667 • Rank: 6/16



Temporary Structures as Housing 4.08%

MHE 0.489



**RANK: 9 / 16 STATES** SCORE: 0.489



Raw MHE 0.333

**Relative MHE** 0.644

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 4.3%



**Critical Infrastructure Exposed:** 42.9%



Storm Surge + Sea Level Rise 10.5%

**1**2 \$10.3 Million

**Critical Infrastructure Exposed:** 42.9%



Storm Surge 48.3%

**4** 55 \$10.3 Million

**Critical Infrastructure Exposed:** 50.0%



**Tropical Cyclone Wind** 

100% **114** \$12.5 Million

**Critical Infrastructure Exposed:** 100%

43.7% **5**0 \$10.3 Million **Critical Infrastructure Exposed:** 35.7%

Earthquake



Tsunami

**A** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%

Landslide 7.8%



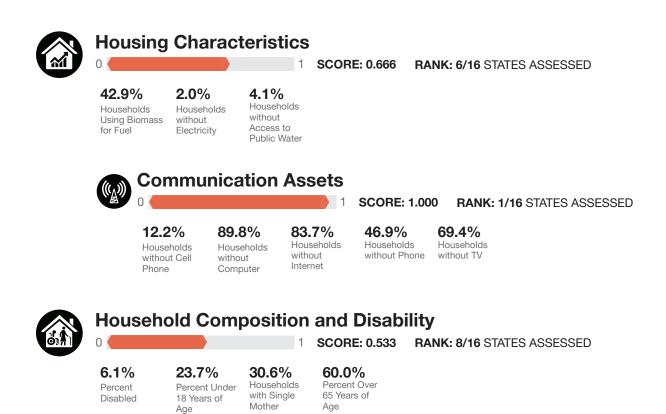
**Critical Infrastructure Exposed:** 0.0%



# VULNERABILITY (V)

#### RANK: 10 / 16 STATES ASSESSED **SCORE: 0.400**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Angaur is primarily driven by Housing Characteristics and Socioeconomic Status. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.





### Socioeconomic Status

\$7,436.20 Average Income (USD)



3.4% Unemployment Rate

1



SCORE: 0.666

than \$5.50 per day



24

#### Housing Type and Transportation 0 🔶 1 SCORE: 0.000

2.3 44.9% Median Percent of Number of with No Persons per Housing Unit

Vehicle

0.0% Population Living in Group Households Quarters

Institutionalized

Population

0.0% Housing Structures with 10 or more Units

4.1%

Livina in

Temporary

Structures

Households

RANK: 13/16 STATES ASSESSED

RANK: 6/16 STATES ASSESSED

# **COPING CAPACITY (CC)**

**RANK: 6 / 16 STATES ASSESSED SCORE: 0.667** 

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



#### **Emergency Services Capacity**

38.67 Average Distance to Fire Station (mi) Shelter (mi)

0.34 Average Distance to

Average Distance to Health Facility (mi)

1

0.32

0.36

Average Distance to

Port (mi)



0

#### **Transportation Capacity**

1.29 18 Road Density (mi per square mi)

Maximum Distance to Koror (mi)

SCORE: 0.534

1 SCORE: 0.667

RANK: 8/16 STATES ASSESSED

RANK: 6/16 STATES ASSESSED

**National Disaster Preparedness Baseline Assessment: Palau** 



# **RESILIENCE (R)**

#### RANK: 4 / 16 STATES ASSESSED SCORE: 0.634

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Housing Characteristics





Household Composition and Disability



Transportation Capacity

# **KEY FACTORS INFLUENCING RESILIENCE**



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### **Socioeconomic Status**

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



#### Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

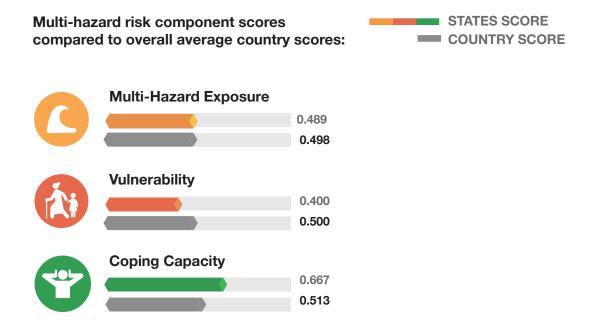
	HAZ	ARD-SPECIFIC	RISK (HSR)
		Sea Level Rise	RANK: 11 / 16 STATES ASSESSED SCORE: 0.177
<b>1</b>		Sea Level Rise + Storm Surge	RANK: 14 / 16 STATES ASSESSED SCORE: 0.102
		Storm Surge	RANK: 5 / 16 STATES ASSESSED SCORE: 0.256
		Tropical Cyclone Wind	RANK: 11 / 16 STATES ASSESSED SCORE: 0.073
	-Mp-	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
		Tsunami	RANK: 6 / 16 STATES ASSESSED SCORE: 0.248
		Landslide	RANK: 9 / 16 STATES ASSESSED SCORE: 0.079



# MULTI-HAZARD RISK (MHR)

12 / 16 RANK WITHIN STATES Score: 0.407

Angaur's score and ranking are due to Low Multi-hazard Exposure combined with Low Vulnerability and Moderate Coping Capacity scores.





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU HATOHOBEI

# NDPBA SUBNATIONAL PROFILE



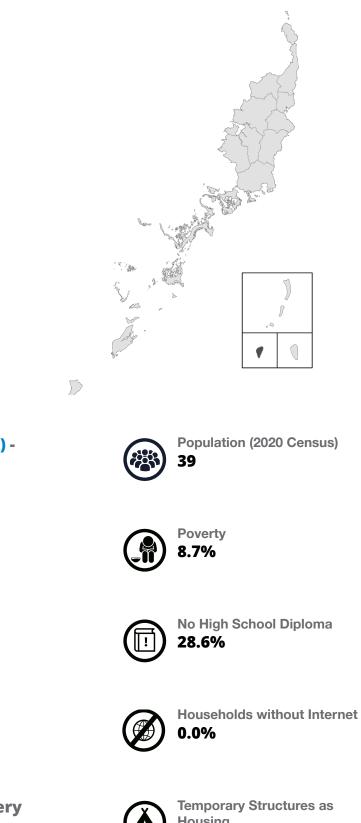
©2023 Pacific Disaster Center

STATE PROFILE

# PALAU **HATOHOBEI**

**CAPITAL: HATOHOBEI** 

Area: 0.3 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) -**High Score: 0.589 • Rank: 6/16

**RESILIENCE (R) - Very Low** Score: 0.134 • Rank: 14/16



**MULTI-HAZARD EXPOSURE** (MHE) - Very Low Score: 0.033 • Rank: 16/16



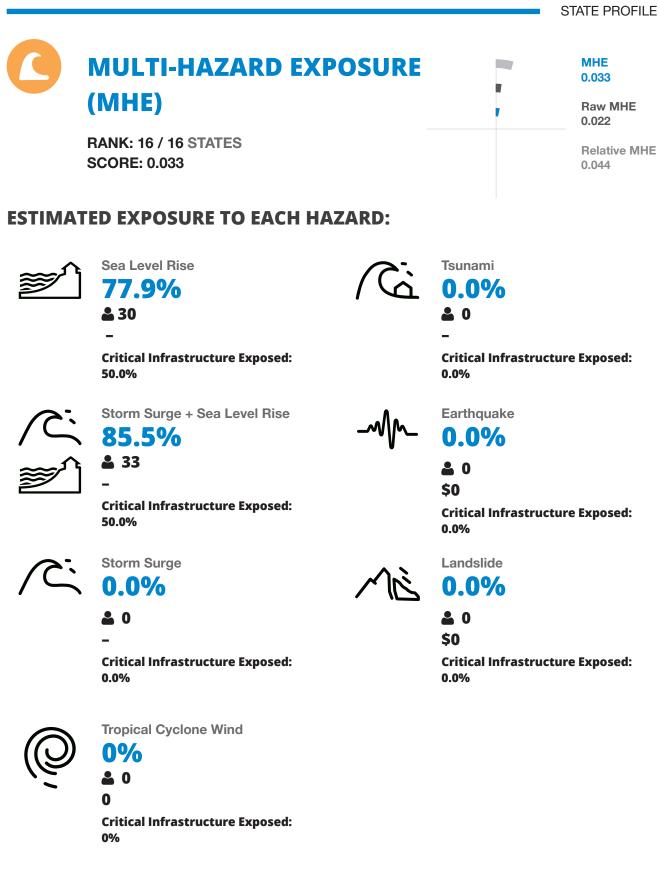
**VULNERABILITY (V) - High** Score: 0.733 • Rank: 5/16



**COPING CAPACITY (CC) - Very** Low Score: 0.000 • Rank: 16/16

Housing 0.00%



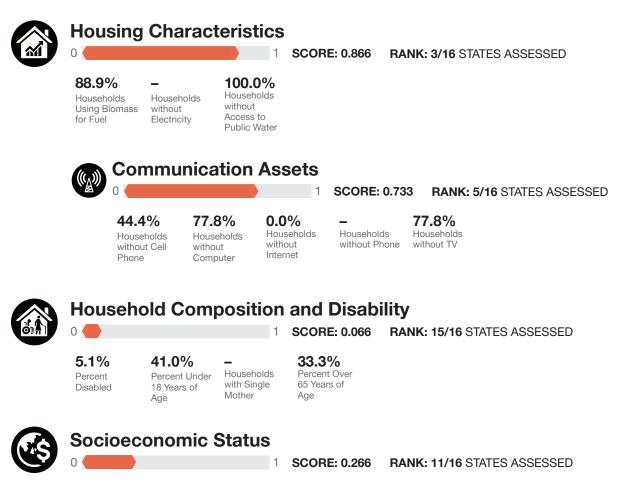




# VULNERABILITY (V)

#### RANK: 5 / 16 STATES ASSESSED SCORE: 0.733

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Hatohobei is primarily driven by Housing Type and Transportation and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



**\$7,812.00** Average Income (USD) **28.6%** Percent No High School Diploma

**0.0%** Unemployment Rate **8.7%** Population Earning Less than \$5.50 per day



34

#### Housing Type and Transportation

**3.8** Median Number of Persons per Housing Unit

100.0% Percent of Households with No Vehicle

**2.6%** Population Living in Group Quarters 2.6% 0.0% Households Living in Temporary

Structures

1 SCORE: 1.000

0.0% Housing Structures with 10 or more Units

RANK: 1/16 STATES ASSESSED

0

# **COPING CAPACITY (CC)**

RANK: 16 / 16 STATES ASSESSED SCORE: 0.000

RANK: 16/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



0

0 🌢

#### **Emergency Services Capacity**

376.55 Average Distance to Fire Station (mi) Shelter (mi)

338.65 Average Distance to

338.65 Average Distance to Health Facility (mi)

1

1 SCORE: 0.000



#### **Transportation Capacity**

0.00 373 Road Density Maximum (mi per square mi)

338.65 Average Distance to Distance to Port (mi) Koror (mi)

SCORE: 0.000 RANK: 16/16 STATES ASSESSED

**National Disaster Preparedness Baseline Assessment: Palau** 



# **RESILIENCE (R)**

#### RANK: 14 / 16 STATES ASSESSED SCORE: 0.134

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:



Housing Type and Transportation



Housing Characteristics



Emergency Services Capacity



Transportation Capacity

## **KEY FACTORS INFLUENCING RESILIENCE**



#### Housing Type and Transportation

Populations living in temporary housing are more susceptible to damage and losses resulting from hazard impacts. In addition, higher density living situations such as multi-unit housing, populations residing in group living quarters or crowded housing increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access, and especially those living in isolated areas, are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.



#### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 2 / 16 STATES ASSESSED SCORE: 0.418
	Sea Level Rise + Storm Surge	RANK: 3 / 16 STATES ASSESSED SCORE: 0.377
	Storm Surge	RANK: 14 / 16 STATES ASSESSED SCORE: 0.000
Q	Tropical Cyclone Wind	RANK: 15 / 16 STATES ASSESSED SCORE: 0.000
-M/n-	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami 🔶	RANK: 14 / 16 STATES ASSESSED SCORE: 0.000
	Landslide ♦	RANK: 13 / 16 STATES ASSESSED SCORE: 0.000



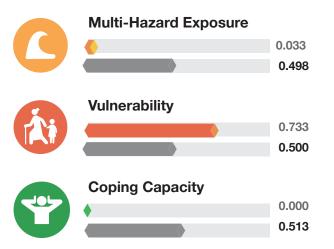
# MULTI-HAZARD RISK (MHR)

6 / 16 RANK WITHIN STATES Score: 0.589

Hatohobei's score and ranking are due to Very Low Multi-hazard Exposure combined with High Vulnerability and Very Low Coping Capacity scores.

 Multi-hazard risk component scores
 STATES SCORE

 compared to overall average country scores:
 COUNTRY SCORE





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU KAYANGEL

# NDPBA SUBNATIONAL PROFILE



©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: KAYANGEL** Area: 0.7 mi2

) 1 0 

#### **RISK AND VULNERABILITY COMPONENT SCORE**



**MULTI-HAZARD RISK (MHR) -Very Low** Score: 0.370 • Rank: 14/16

**RESILIENCE (R) - High** Score: 0.701 • Rank: 3/16



**MULTI-HAZARD EXPOSURE** (MHE) - Moderate Score: 0.511 • Rank: 8/16



VULNERABILITY (V) -Moderate Score: 0.466 • Rank: 9/16



**COPING CAPACITY (CC) - High** Score: 0.867 • Rank: 3/16



Population (2020 Census) 41





No High School Diploma 13.8%



Households without Internet 72.0%



**Temporary Structures as** Housing 4.00%



0.511 Raw MHE

MHE

0.222

0.800

**Relative MHE** 

**RANK: 8 / 16 STATES** SCORE: 0.511

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 10.5%



**Critical Infrastructure Exposed:** 20.0%



Storm Surge + Sea Level Rise 60.1%

25 \$1.99 Million

**Critical Infrastructure Exposed:** 100.0%



**Storm Surge** 99.5%

**4**1 \$7.41 Million

**Critical Infrastructure Exposed:** 100.0%



**Tropical Cyclone Wind** 

100% **4**1

\$7.41 Million

**Critical Infrastructure Exposed:** 100%

Tsunami 99.5% **4**1 \$7.41 Million

**Critical Infrastructure Exposed:** 100.0%

Earthquake

0.0%

**2** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%

Landslide



0.0%

**\$0** 

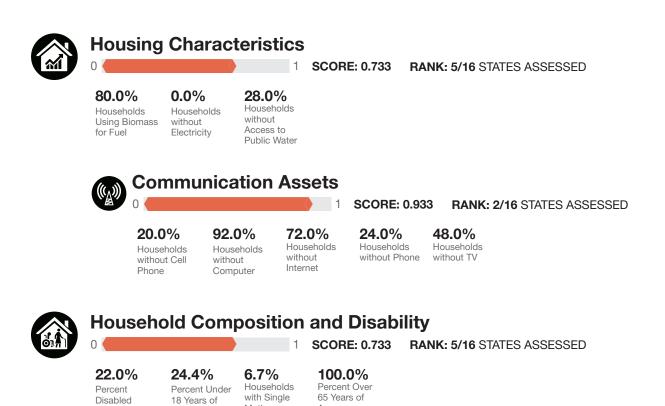
**Critical Infrastructure Exposed:** 0.0%



# VULNERABILITY (V)

#### RANK: 9 / 16 STATES ASSESSED **SCORE: 0.466**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Kayangel is primarily driven by Housing Characteristics and Household Composition and Disability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



Age



#### Socioeconomic Status

Age

\$6,961.96 Average Income (USD)



0.0% Unemployment Rate

1

Mother

12.9% Population Earning Less

SCORE: 0.200

than \$5.50 per day



44

#### Housing Type and Transportation

1 SCORE: 0.200

2.7 Median Number of Persons per Housing Unit

72.0% Percent of Households with No Vehicle

0.0% Population Living in Group Quarters

4.0% Institutionalized Households Population Livina in Temporary

Structures

0.0% Housing Structures with 10 or more Units

RANK: 10/16 STATES ASSESSED

RANK: 13/16 STATES ASSESSED

0

# COPING CAPACITY (CC)

RANK: 3 / 16 STATES ASSESSED SCORE: 0.867

RANK: 3/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



#### **Emergency Services Capacity**

35.36 Average Distance to Fire Station (mi) Shelter (mi)

0.24 Average Distance to

Average Distance to Health Facility (mi)

0.18



0

#### **Transportation Capacity**

29

0.21

9.22 Road Density (mi per square mi)

Maximum Distance to Koror (mi)

Average Distance to Port (mi)

1 SCORE: 0.867

1 SCORE: 0.800 RANK: 4/16 STATES ASSESSED



# **RESILIENCE (R)**

#### RANK: 3 / 16 STATES ASSESSED SCORE: 0.701

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Housing Characteristics







Socioeconomic Status



Emergency Services Capacity

# **KEY FACTORS INFLUENCING RESILIENCE**



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 13 / 16 STATES ASSESSED SCORE: 0.100
	Sea Level Rise + Storm Surge	RANK: 11 / 16 STATES ASSESSED SCORE: 0.152
	Storm Surge	RANK: 7 / 16 STATES ASSESSED SCORE: 0.229
Q	Tropical Cyclone Wind	RANK: 14 / 16 STATES ASSESSED SCORE: 0.030
	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami	RANK: 7 / 16 STATES ASSESSED SCORE: 0.229
	Landslide	RANK: 13 / 16 STATES ASSESSED SCORE: 0.000



# MULTI-HAZARD RISK (MHR)

14 / 16 RANK WITHIN STATES Score: 0.370

Kayangel's score and ranking are due to Moderate Multi-hazard Exposure combined with Moderate Vulnerability and High Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores: Multi-Hazard Exposure 0.511 0.498 Vulnerability 0.466 0.500 Coping Capacity 0.867 0.513



Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU **KOROR**

# NDPBA SUBNATIONAL PROFILE



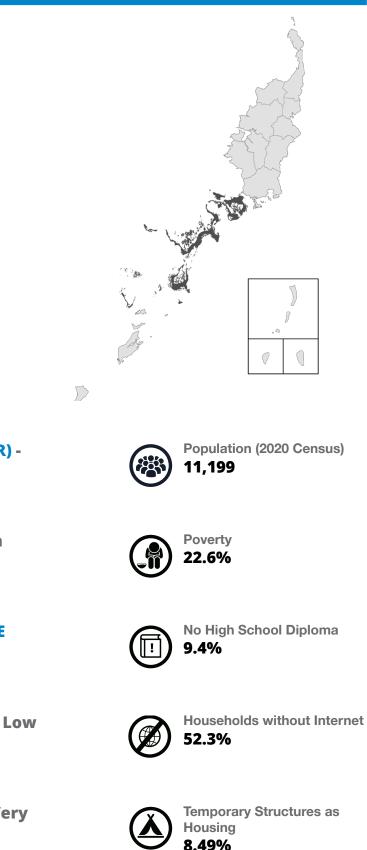
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: NGERBECHED** 

Area: 22 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Very Low Score: 0.244 • Rank: 15/16

→)(←

RESILIENCE (R) - Very High Score: 1.000 • Rank: 1/16



MULTI-HAZARD EXPOSURE (MHE) - Very High Score: 0.733 • Rank: 2/16



VULNERABILITY (V) - Very Low Score: 0.000 • Rank: 16/16



COPING CAPACITY (CC) - Very High Score: 1.000 • Rank: 1/16

MHE 0.733



**RANK: 2 / 16 STATES** SCORE: 0.733



Raw MHE 1.000

**Relative MHE** 0.467

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 25.0%

**2**,805 \$113,200

**Critical Infrastructure Exposed:** 43.5%



Storm Surge + Sea Level Rise 31.5%

**3,528** \$113,200

**Critical Infrastructure Exposed:** 44.8%



Storm Surge 27.6%

38.2%

**3,092** \$148,500 **Critical Infrastructure Exposed:** 



**Tropical Cyclone Wind** 

100% **11,199** \$429 Million

**Critical Infrastructure Exposed:** 100%

Tsunami 26.9% **3**,014

\$148,500 **Critical Infrastructure Exposed:** 37.6%

Earthquake

0.0%

**A** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%

Landslide

33.3% **3,734** 

\$9.42 Million **Critical Infrastructure Exposed:** 33.9%



# VULNERABILITY (V)

#### RANK: 16 / 16 STATES ASSESSED **SCORE: 0.000**

RANK: 16/16 STATES ASSESSED

RANK: 11/16 STATES ASSESSED

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Koror is primarily driven by Housing Type and Transportation and Household Composition and Disability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



#### Housing Characteristics

1.5%

without

2.6% Households Using Biomass for Fuel

2.5% Households Electricity

Households without Access to Public Water

1

SCORE: 0.000



0

#### Communication Assets 1

3.8% Households without Cell Phone

52.3% 51.9% Households Households without without Internet Computer

35.4% 28.5% Households without Phone

SCORE: 0.333

Households without TV



#### Household Composition and Disability

SCORE: 0.266 RANK: 12/16 STATES ASSESSED

5.1% Percent Disabled

0

22.1% Percent Under 18 Years of Age

27.0% 73.3% Households Percent Over with Single 65 Years of Mother Age

1

1

#### Socioeconomic Status

Vehicle

\$12,717.41 Average Income (USD)

3.8% 9.4% Unemployment Percent No Rate High School Diploma

22.6% day

SCORE: 0.066

Population Earning Less than \$5.50 per



54

#### Housing Type and Transportation 1 SCORE: 0.500 0

3.3 18.1% Median Number of with No Persons per

0.2% Percent of Households Quarters

0.2% Population Living in Group

8.5% Institutionalized Households Population Livina in Temporary

Structures

8.8% Housing Structures with 10 or more Units

RANK: 5/16 STATES ASSESSED

RANK: 15/16 STATES ASSESSED



Housing Unit

# COPING CAPACITY (CC)

**RANK: 1 / 16 STATES ASSESSED SCORE: 1.000** 

RANK: 1/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



#### **Emergency Services Capacity**

1.09 Average Distance to Fire Station (mi) Shelter (mi)

0.32 Average Distance to

Average Distance to Health Facility (mi)

0.55

Average Distance to

Port (mi)

0.57



0

#### **Transportation Capacity**

1.46 0 Road Density (mi per square mi)

Maximum Distance to Koror (mi)

SCORE: 1.000 RANK: 1/16 STATES ASSESSED

SCORE: 1.000

1

1



# **RESILIENCE (R)**

#### RANK: 1 / 16 STATES ASSESSED SCORE: 1.000

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the three thematic areas with the weakest relative scores:



Housing Type and Transportation



Household Composition and Disability



Socioeconomic Status

## **KEY FACTORS INFLUENCING RESILIENCE**



#### Housing Type and Transportation

Populations living in temporary housing are more susceptible to damage and losses resulting from hazard impacts. In addition, higher density living situations such as multi-unit housing, populations residing in group living quarters or crowded housing increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access, and especially those living in isolated areas, are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



#### Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 15 / 16 STATES ASSESSED SCORE: 0.000
	Sea Level Rise + Storm Surge •	RANK: 16 / 16 STATES ASSESSED SCORE: 0.000
	Storm Surge	RANK: 14 / 16 STATES ASSESSED SCORE: 0.000
Q	Tropical Cyclone Wind	RANK: 15 / 16 STATES ASSESSED SCORE: 0.000
M	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami 🔶	RANK: 14 / 16 STATES ASSESSED SCORE: 0.000
	Landslide	RANK: 13 / 16 STATES ASSESSED SCORE: 0.000



# **MULTI-HAZARD RISK (MHR)**

15 / 16 RANK WITHIN STATES Score: 0.244

Koror's score and ranking are due to Very High Multi-hazard Exposure combined with Very Low Vulnerability and Very High Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores: Multi-Hazard Exposure 0.733 0.498 Vulnerability 0.000 0.500 Coping Capacity 1.000 0.513



Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU MELEKEOK

## NDPBA SUBNATIONAL PROFILE



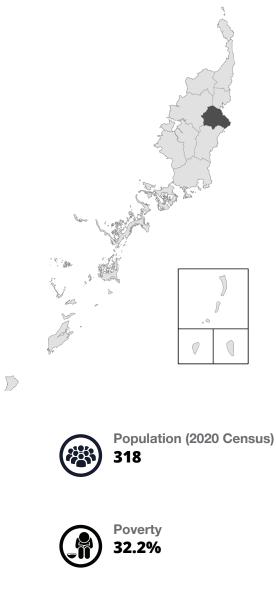
©2023 Pacific Disaster Center

STATE PROFILE

# PALAU MELEKEOK

CAPITAL: MELEKEOK

Area: 10 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Very Low Score: 0.381 • Rank: 13/16

→)(←

**RESILIENCE (R) - Moderate** Score: 0.567 • Rank: 8/16



MULTI-HAZARD EXPOSURE (MHE) - Very Low Score: 0.278 • Rank: 14/16



VULNERABILITY (V) - High Score: 0.666 • Rank: 6/16



**COPING CAPACITY (CC) - High** Score: 0.800 • Rank: 4/16



No High School Diploma
19.2%



Households without Internet **57.5%** 



Temporary Structures as Housing 6.32%



0.278 Raw MHE 0.333

MHE

**RANK: 14 / 16 STATES** SCORE: 0.278



**Relative MHE** 0.222

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 42.8%

**136** 

**Critical Infrastructure Exposed:** 28.8%



Storm Surge + Sea Level Rise 46.0%



**146** 

**Critical Infrastructure Exposed:** 28.8%



**Storm Surge** 10.5%

**3**3

**Critical Infrastructure Exposed:** 3.0%



**Tropical Cyclone Wind** 100%

**318** \$15.5 Million

**Critical Infrastructure Exposed:** 100%

Tsunami 10.1%

▲ 32

**Critical Infrastructure Exposed:** 3.0%

Earthquake

0.0%

**2** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%



1.3%



**Critical Infrastructure Exposed:** 0.0%



# VULNERABILITY (V)

#### RANK: 6 / 16 STATES ASSESSED **SCORE: 0.666**

RANK: 14/16 STATES ASSESSED

RANK: 7/16 STATES ASSESSED

RANK: 4/16 STATES ASSESSED

RANK: 14/16 STATES ASSESSED

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Melekeok is primarily driven by Socioeconomic Status and Housing Type and Transportation. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



#### Housing Characteristics

without

8.5% Households Using Biomass for Fuel

1.1% Households Electricity

11.7% Households without Access to Public Water

1

SCORE: 0.133



#### Communication Assets 1

10.6% Households without Cell Phone

55.3% 57.5% Households Households without without Internet Computer

14.9% Households without Phone

SCORE: 0.133

18.1% Households without TV

Household Composition and Disability 0 SCORE: 0.600 1

17.3% Percent Disabled

21.4% Percent Under 18 Years of Age

22.3% 0.0% Percent Over Households with Single 65 Years of Mother Age

#### Socioeconomic Status

\$10,002.58 Average Income (USD)

19.2% Percent No High School Diploma

5.8% Unemployment Rate

1



day

SCORE: 0.800



64

#### Housing Type and Transportation 1 SCORE: 0.636

3.4 Median Number of Persons per Housing Unit

14.9% Percent of Households with No Vehicle

1.6% Population Living in Group Quarters

1.6% Institutionalized Population

6.3% Households Livina in Temporary Structures

0.0% Housing Structures with 10 or more Units

RANK: 4/16 STATES ASSESSED

0

# COPING CAPACITY (CC)

RANK: 4 / 16 STATES ASSESSED SCORE: 0.800

RANK: 9/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



#### **Emergency Services Capacity**

1.09 0.43 Average Average Distance to Fire Station (mi)

0.43 0.96 Average Distance to Shelter (mi) (mi)



0

#### **Transportation Capacity**

1.34 9 Road Density Ma (mi per square Dimi) Ko

Maximum Distance to Koror (mi) **0.88** Average Distance to Port (mi)

1

1 SCORE: 0.934 RANK: 2/16 STATES ASSESSED 0.96 Average Distance to

SCORE: 0.467



# **RESILIENCE (R)**

#### RANK: 8 / 16 STATES ASSESSED SCORE: 0.567

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Socioeconomic Status





Household **Composition and** Disability



Transportation Capacity

## **KEY FACTORS INFLUENCING RESILIENCE**



#### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



#### Housing Type and Transportation

Populations living in temporary housing are more susceptible to damage and losses resulting from hazard impacts. In addition, higher density living situations such as multi-unit housing, populations residing in group living quarters or crowded housing increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access, and especially those living in isolated areas, are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



#### Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 7 / 16 STATES ASSESSED SCORE: 0.245
	Sea Level Rise + Storm Surge	RANK: 9 / 16 STATES ASSESSED SCORE: 0.203
	Storm Surge	RANK: 11 / 16 STATES ASSESSED SCORE: 0.114
Q	Tropical Cyclone Wind	RANK: 6 / 16 STATES ASSESSED SCORE: 0.149
-Mp-	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami	RANK: 11 / 16 STATES ASSESSED SCORE: 0.114
	Landslide	RANK: 10 / 16 STATES ASSESSED SCORE: 0.062



# **MULTI-HAZARD RISK (MHR)**

13 / 16 RANK WITHIN STATES Score: 0.381

Melekeok's score and ranking are due to Very Low Multi-hazard Exposure combined with High Vulnerability and High Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores: STATES SCORE COUNTRY SCORE Multi-Hazard Exposure 0.278 0.498 Vulnerability





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU NGARAARD

## NDPBA SUBNATIONAL PROFILE



©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: ULIMANG** Area: 11 mi2

 $\left(\right)$ ß 0

### **RISK AND VULNERABILITY COMPONENT SCORE**



**MULTI-HAZARD RISK (MHR) -Very High** Score: 0.796 • Rank: 1/16

**RESILIENCE (R) - Very Low** Score: 0.267 • Rank: 13/16



**MULTI-HAZARD EXPOSURE** (MHE) - Very High Score: 0.922 • Rank: 1/16



**VULNERABILITY (V) - High** Score: 0.800 • Rank: 4/16



**COPING CAPACITY (CC) - Low** Score: 0.334 • Rank: 11/16



Population (2020 Census) 396



34.7%



No High School Diploma 18.2%



Households without Internet 67.2%



**Temporary Structures as** Housing 0.78%



**RANK: 1 / 16 STATES** SCORE: 0.922

## MHE 0.922

Raw MHE 0.888

**Relative MHE** 0.955

## **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 61.2%

242 \$186,300

**Critical Infrastructure Exposed:** 100.0%



Storm Surge + Sea Level Rise 72.3%



**286** \$7.90 Million

**Critical Infrastructure Exposed:** 100.0%



**Storm Surge** 56.4%

223 \$12.2 Million

**Critical Infrastructure Exposed:** 61.1%



**Tropical Cyclone Wind** 

100% **396** \$30.7 Million

**Critical Infrastructure Exposed:** 100%

56.2% **222** \$12.2 Million **Critical Infrastructure Exposed:** 61.1%

Earthquake 98.0%

Tsunami

**388** \$30.6 Million **Critical Infrastructure Exposed:** 100.0%

Landslide

45.5%

**4** 180 \$9.71 Million

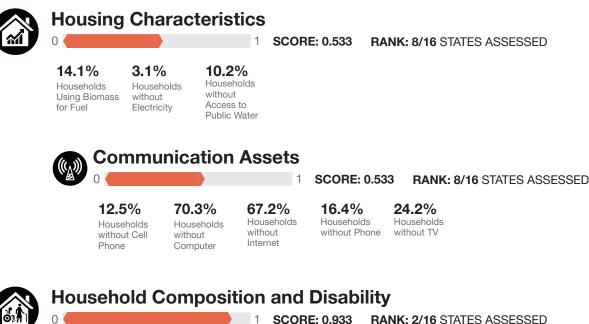
**Critical Infrastructure Exposed:** 36.1%



# VULNERABILITY (V)

### RANK: 4 / 16 STATES ASSESSED **SCORE: 0.800**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Ngaraard is primarily driven by Household Composition and Disability and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



#### 0 SCORE: 0.933 1

12.4% Percent Disabled

26.5% Percent Under 18 Years of Age

33.6% Households with Single Mother Age

26.6% Percent Over 65 Years of

SCORE: 0.466

day



## Socioeconomic Status

\$8,343.86 Average Income (USD)

18.2% Percent No High School Diploma

2.0% Unemployment Rate

1

34.7% Population Earning Less than \$5.50 per

74

#### Housing Type and Transportation 1 SCORE: 0.307 0

3.3 Median Number of Persons per Housing Unit

17.2% Percent of Households with No Vehicle

0.3% Population Living in Group Quarters

0.3% Institutionalized Population

0.8%

Livina in

Temporary

Structures

Households

0.0% Housing Structures with 10 or more Units

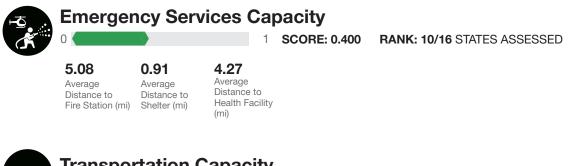
RANK: 9/16 STATES ASSESSED

RANK: 9/16 STATES ASSESSED

# **COPING CAPACITY (CC)**

RANK: 11 / 16 STATES ASSESSED SCORE: 0.334

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



1

1.72

Average Distance to

Port (mi)



0

**Transportation Capacity** 

1.69 14 Road Density (mi per square mi)

Maximum Distance to Koror (mi)

SCORE: 0.400

RANK: 10/16 STATES ASSESSED



# **RESILIENCE (R)**

### RANK: 13 / 16 STATES ASSESSED SCORE: 0.267

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

### Below are the four thematic areas with the weakest relative scores:





Household Composition and Disability





Emergency Services Capacity



Transportation Capacity

## **KEY FACTORS INFLUENCING RESILIENCE**



## Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.



### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

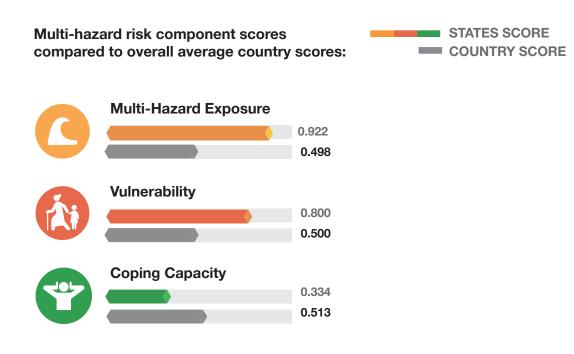
HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 3 / 16 STATES ASSESSED SCORE: 0.393
	Sea Level Rise + Storm Surge	RANK: 1 / 16 STATES ASSESSED SCORE: 0.543
	Storm Surge	RANK: 1 / 16 STATES ASSESSED SCORE: 0.604
Q	Tropical Cyclone Wind	RANK: 2 / 16 STATES ASSESSED SCORE: 0.277
-Mp-	Earthquake	RANK: 1 / 16 STATES ASSESSED SCORE: 0.676
	Tsunami	RANK: 1 / 16 STATES ASSESSED SCORE: 0.604
	Landslide	RANK: 2 / 16 STATES ASSESSED SCORE: 0.568



## MULTI-HAZARD RISK (MHR)

1 / 16 RANK WITHIN STATES Score: 0.796

Ngaraard's score and ranking are due to Very High Multi-hazard Exposure combined with High Vulnerability and Low Coping Capacity scores.





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU NGARCHELONG

## NDPBA SUBNATIONAL PROFILE



©2023 Pacific Disaster Center

## PALAU **NGARCHELONG**

**CAPITAL: MENGELLANG** 

Area: 3 mi2



### **RISK AND VULNERABILITY COMPONENT SCORE**



**MULTI-HAZARD RISK (MHR) -**Moderate Score: 0.485 • Rank: 9/16

**RESILIENCE (R) - Moderate** Score: 0.601 • Rank: 6/16



**MULTI-HAZARD EXPOSURE** (MHE) - High Score: 0.655 • Rank: 5/16



**VULNERABILITY (V)** -Moderate Score: 0.533 • Rank: 8/16



**COPING CAPACITY (CC) - High** Score: 0.734 • Rank: 5/16

No High School Diploma 12.0%



Households without Internet 59.3%



**Temporary Structures as** Housing 3.54%

82

MHE 0.655



RANK: 5 / 16 STATES SCORE: 0.655



Raw MHE 0.622

Relative MHE 0.689

## **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise



Critical Infrastructure Exposed: 16.7%



Storm Surge + Sea Level Rise

# **Z**

\$6.93 Million Critical Infrastructure Exposed:

37.5%

**35** 



Storm Surge

### **å** 16 \$4.56 Million

Critical Infrastructure Exposed: 31.9%



**Tropical Cyclone Wind** 

**100% a** 384

\$11.9 Million

Critical Infrastructure Exposed: 100%



Tsunami 4.0% 4.15 \$4.56 Million Critical Infrastructure Exposed: 31.9%

Mp\_ 1

Earthquake

**384** \$11.5 Million

Critical Infrastructure Exposed: 100.0%

MÈ

Landslide



.

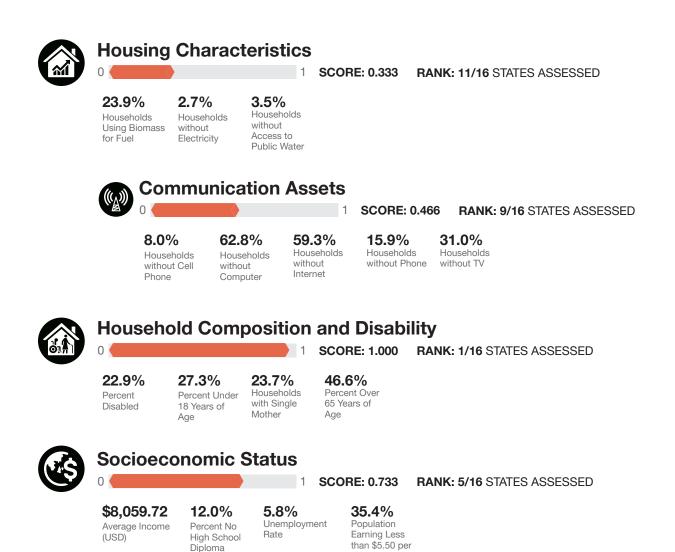
Critical Infrastructure Exposed: 4.2%



# VULNERABILITY (V)

### RANK: 8 / 16 STATES ASSESSED **SCORE: 0.533**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Ngarchelong is primarily driven by Household Composition and Disability and Socioeconomic Status. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



84

0 🔶

3.4

Median

Number of

Persons per

Housing Unit

0.0% Population Living in Group Quarters

Housing Type and Transportation

13.3%

Percent of

with No

Vehicle

Households

Institutionalized Population

day

1 SCORE: 0.000

0.0% Households Housing Structures Temporary with 10 or more Units

3.5%

Livina in

Structures

RANK: 13/16 STATES ASSESSED

# COPING CAPACITY (CC)

RANK: 5 / 16 STATES ASSESSED SCORE: 0.734

RANK: 5/16 STATES ASSESSED

RANK: 7/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.

1 SCORE: 0.734

SCORE: 0.600



### **Emergency Services Capacity**

**8.26 0.29** Average Distance to Fire Station (mi)

0.29 0.78 Average Distance to Shelter (mi) Health

Average Distance to Health Facility (mi)



0

## **Transportation Capacity**

1.74 19 Road Density (mi per square mi) Kord

Maximum Distance to Koror (mi) **0.58** Average Distance to

Port (mi)

1

#### National Disaster Preparedness Baseline Assessment: Palau



# **RESILIENCE (R)**

### RANK: 6 / 16 STATES ASSESSED SCORE: 0.601

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

### Below are the four thematic areas with the weakest relative scores:





Household Composition and Disability Socioeconomic Status



Transportation Capacity



Housing Characteristics

## **KEY FACTORS INFLUENCING RESILIENCE**



## Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 12 / 16 STATES ASSESSED SCORE: 0.140
	Sea Level Rise + Storm Surge	RANK: 13 / 16 STATES ASSESSED SCORE: 0.125
	Storm Surge	RANK: 8 / 16 STATES ASSESSED SCORE: 0.170
Q	Tropical Cyclone Wind	RANK: 7 / 16 STATES ASSESSED SCORE: 0.124
-Mp	Earthquake	RANK: 3 / 16 STATES ASSESSED SCORE: 0.364
(G	Tsunami	RANK: 8 / 16 STATES ASSESSED SCORE: 0.175
	Landslide	RANK: 8 / 16 STATES ASSESSED SCORE: 0.158



## **MULTI-HAZARD RISK (MHR)**

9 / 16 RANK WITHIN STATES Score: 0.485

Ngarchelong's score and ranking are due to High Multi-hazard Exposure combined with Moderate Vulnerability and High Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores: Multi-Hazard Exposure 0.655 0.498 Vulnerability 0.533 0.500 Coping Capacity 0.734 0.513



Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global

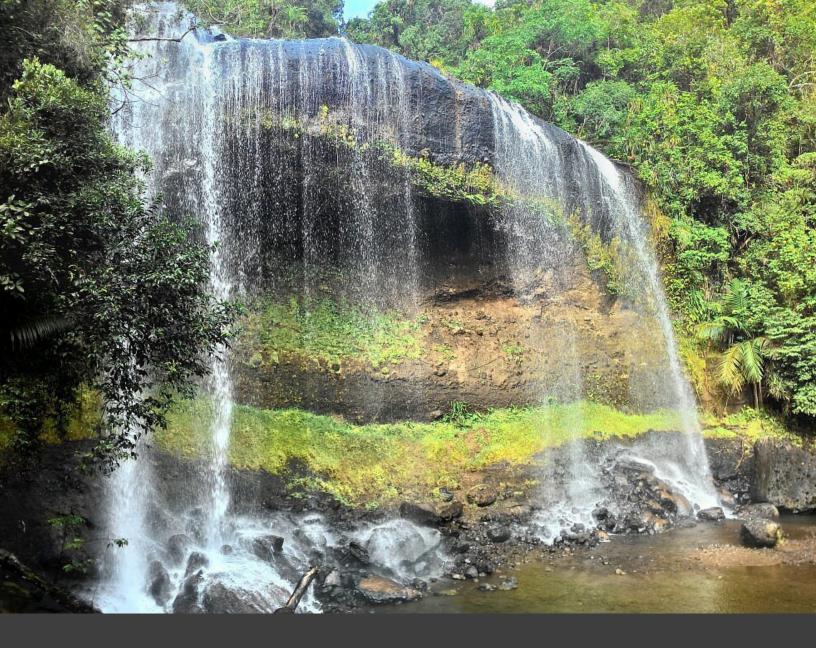




www.pdc.org



ndpba.plw@pdc.org



# PALAU NGARDMAU

## NDPBA SUBNATIONAL PROFILE



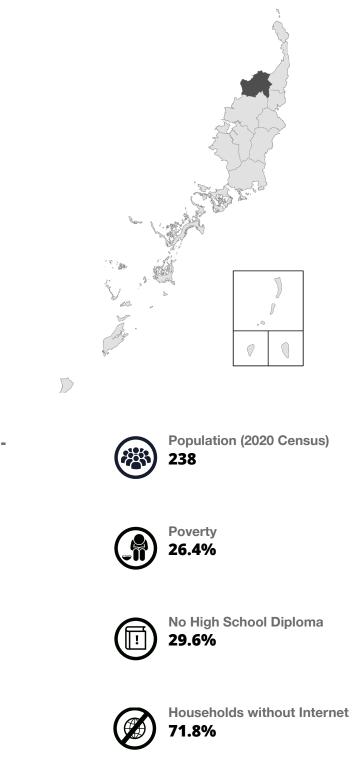
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: URDMANG** 

Area: 12 mi2



### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Low Score: 0.477 • Rank: 10/16

→)(←

RESILIENCE (R) - Moderate Score: 0.601 • Rank: 6/16



MULTI-HAZARD EXPOSURE (MHE) - Moderate Score: 0.633 • Rank: 6/16



**VULNERABILITY (V) - Low** Score: 0.266 • Rank: 12/16



COPING CAPACITY (CC) - Low Score: 0.467 • Rank: 9/16 Temporary Structures as Housing 1.41%



**RANK: 6 / 16 STATES** SCORE: 0.633



Tsunami

Raw MHE 0.444

MHE 0.633

**Relative MHE** 0.822

## **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 22.0%

▲ 52 \$3.78 Million

**Critical Infrastructure Exposed:** 33.3%



Storm Surge + Sea Level Rise 31.3%



**4** 75 \$3.78 Million

**Critical Infrastructure Exposed:** 33.3%



Storm Surge 5.0%

**1**2 \$3.78 Million

**Critical Infrastructure Exposed:** 16.7%



**Tropical Cyclone Wind** 100%

**238** \$3.78 Million

**Critical Infrastructure Exposed:** 100%

4.9% **1**2 \$3.78 Million **Critical Infrastructure Exposed:** 16.7%

Earthquake 100.0%

> **238** \$3.78 Million **Critical Infrastructure Exposed:** 100.0%

Landslide

36.6%

**87** \$3.78 Million

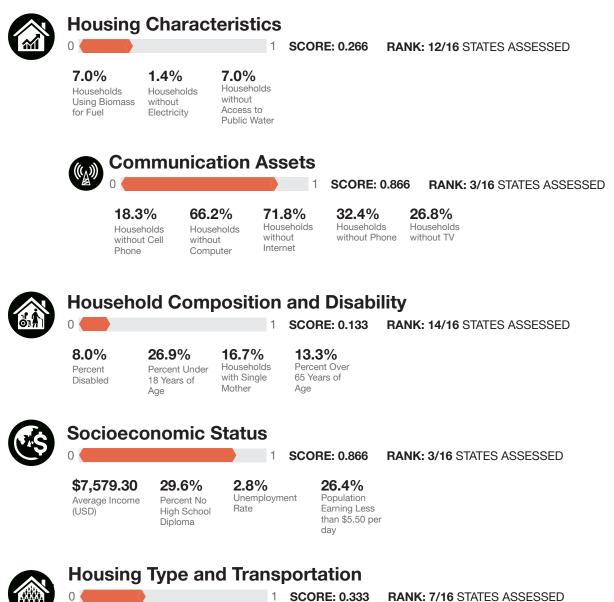
**Critical Infrastructure Exposed:** 66.7%



# VULNERABILITY (V)

### RANK: 12 / 16 STATES ASSESSED **SCORE: 0.266**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Ngardmau is primarily driven by Socioeconomic Status and Housing Type and Transportation. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.





94

3.6 Median Number of Persons per Housing Unit

22.5% Percent of Households with No Vehicle

0.0% Population Living in Group Quarters

Institutionalized Population

0.0% Households

1.4%

Livina in

Temporary

Structures

Housing Structures with 10 or more Units

# COPING CAPACITY (CC)

RANK: 9 / 16 STATES ASSESSED SCORE: 0.467

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



1

0.85

Average Distance to

Port (mi)



0

**Transportation Capacity** 

0.53 11 Road Density (mi per square mi) Kord

Maximum Distance to Koror (mi)

SCORE: 0.334 RANK: 11/16 STATES ASSESSED

National Disaster Preparedness Baseline Assessment: Palau



# **RESILIENCE (R)**

### RANK: 6 / 16 STATES ASSESSED SCORE: 0.601

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

### Below are the four thematic areas with the weakest relative scores:





Socioeconomic Status









Emergency Services Capacity

## **KEY FACTORS INFLUENCING RESILIENCE**



### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



## Housing Type and Transportation

Populations living in temporary housing are more susceptible to damage and losses resulting from hazard impacts. In addition, higher density living situations such as multi-unit housing, populations residing in group living quarters or crowded housing increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access, and especially those living in isolated areas, are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



## **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



## **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 8 / 16 STATES ASSESSED SCORE: 0.229
	Sea Level Rise + Storm Surge	RANK: 12 / 16 STATES ASSESSED SCORE: 0.150
	Storm Surge	RANK: 10 / 16 STATES ASSESSED SCORE: 0.162
Q	Tropical Cyclone Wind	RANK: 12 / 16 STATES ASSESSED SCORE: 0.049
-M/h-	Earthquake	RANK: 5 / 16 STATES ASSESSED SCORE: 0.346
	Tsunami	RANK: 10 / 16 STATES ASSESSED SCORE: 0.162
		RANK: 5 / 16 STATES ASSESSED SCORE: 0.294



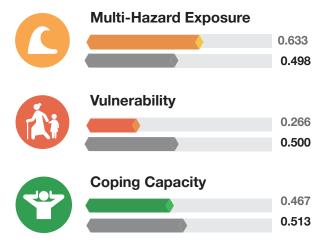
## MULTI-HAZARD RISK (MHR)

10 / 16 RANK WITHIN STATES Score: 0.477

Ngardmau's score and ranking are due to Moderate Multi-hazard Exposure combined with Low Vulnerability and Low Coping Capacity scores.

 Multi-hazard risk component scores
 STATES SCORE

 compared to overall average country scores:
 COUNTRY SCORE





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



# PALAU NGAREMLENGUI

## NDPBA SUBNATIONAL PROFILE

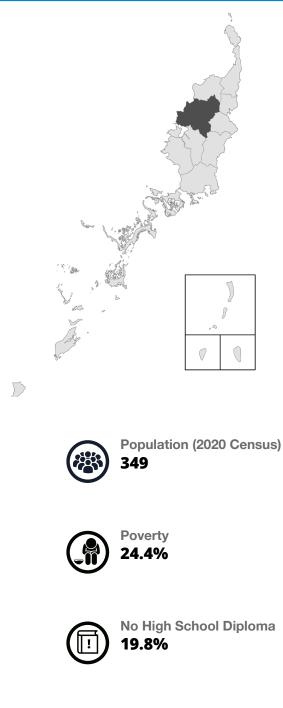


©2023 Pacific Disaster Center



**CAPITAL: IMEONG** 

Area: 24 mi2





Households without Internet **50.5%** 



Temporary Structures as Housing 6.73%

### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Moderate Score: 0.496 • Rank: 8/16

→)(←

RESILIENCE (R) - Low Score: 0.434 • Rank: 11/16



MULTI-HAZARD EXPOSURE (MHE) - Very Low Score: 0.355 • Rank: 13/16



VULNERABILITY (V) - Low Score: 0.333 • Rank: 11/16



**COPING CAPACITY (CC) - Very Low** Score: 0.200 • Rank: 13/16



RANK: 13 / 16 STATES SCORE: 0.355



Raw MHE 0.377

MHE 0.355

Relative MHE 0.333

### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise

**&** 30 \$705,000

Critical Infrastructure Exposed: 16.7%



Storm Surge + Sea Level Rise

# \$ 55 \$ 705,000

Critical Infrastructure Exposed: 16.7%



Storm Surge **15.5%** 

**å** 54

Critical Infrastructure Exposed: 16.7%



Tropical Cyclone Wind **100%** 

**a** 349

\$12.5 Million

Critical Infrastructure Exposed: 100%

Tsunami 13.1%



Critical Infrastructure Exposed: 16.7%

Mn\_ =



**4 \$4.00 Million** Critical Infrastructure Exposed: 5.6%

**M**ik

Landslide

**6**0

\$11.8 Million

Critical Infrastructure Exposed: 16.7%

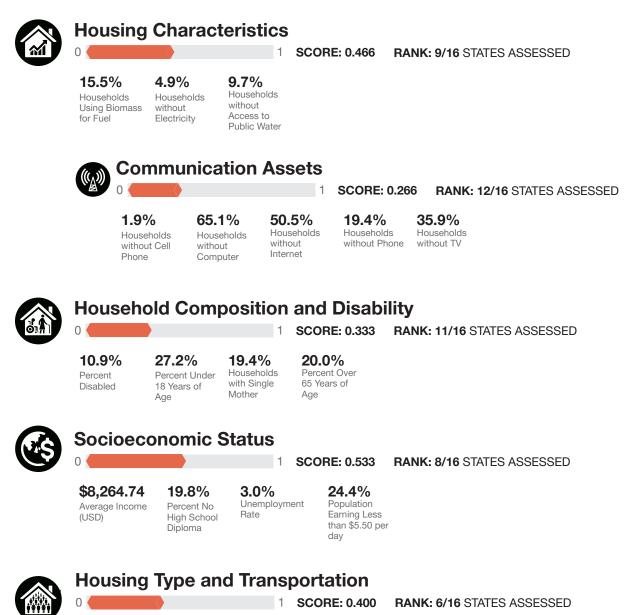




# VULNERABILITY (V)

### RANK: 11 / 16 STATES ASSESSED **SCORE: 0.333**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Ngaremlengui is primarily driven by Socioeconomic Status and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



3.2 Median Number of Persons per

Housing Unit

19.4% Percent of Households with No Vehicle

0.3% Population Living in Group Quarters

0.3% Institutionalized Population

0.0% Households Housing Structures Temporary with 10 or Structures more Units

6.7%

Livina in

104

# COPING CAPACITY (CC)

RANK: 13 / 16 STATES ASSESSED SCORE: 0.200

RANK: 13/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



1

SCORE: 0.200



0

**Transportation Capacity** 

0.64 8 Road Density (mi per square Dis mi) Ko

**O** Maximum Distance to Koror (mi) 1.79

Average Distance to

Port (mi)

National Disaster Preparedness Baseline Assessment: Palau



# **RESILIENCE (R)**

### RANK: 11 / 16 STATES ASSESSED SCORE: 0.434

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

### Below are the four thematic areas with the weakest relative scores:





Socioeconomic Status





Transportation Capacity



Emergency Services Capacity

## **KEY FACTORS INFLUENCING RESILIENCE**



### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



## **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



## **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 10 / 16 STATES ASSESSED SCORE: 0.207
	Sea Level Rise + Storm Surge	RANK: 10 / 16 STATES ASSESSED SCORE: 0.167
	Storm Surge	RANK: 6 / 16 STATES ASSESSED SCORE: 0.255
Q	Tropical Cyclone Wind	RANK: 4 / 16 STATES ASSESSED SCORE: 0.189
-Mp	Earthquake	RANK: 2 / 16 STATES ASSESSED SCORE: 0.422
	Tsunami	RANK: 5 / 16 STATES ASSESSED SCORE: 0.255
	Landslide	RANK: 4 / 16 STATES ASSESSED SCORE: 0.384



## MULTI-HAZARD RISK (MHR)

8 / 16 RANK WITHIN STATES Score: 0.496

Ngaremlengui's score and ranking are due to Very Low Multi-hazard Exposure combined with Low Vulnerability and Very Low Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores: Multi-Hazard Exposure 0.355 0.498 Vulnerability 0.333 0.500 Coping Capacity 0.200 0.513



Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



## PALAU NGATPANG

#### NDPBA SUBNATIONAL PROFILE

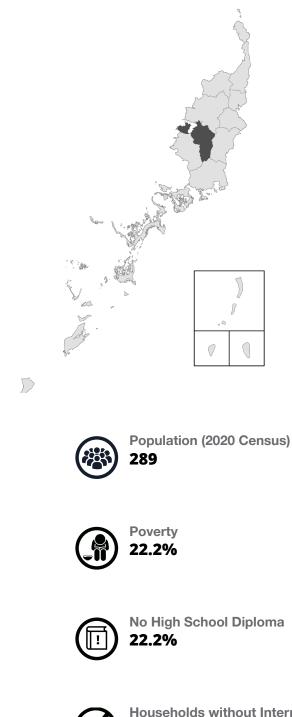


©2023 Pacific Disaster Center

## PALAU NGATPANG

**CAPITAL: NGEREKLMADEL** 

Area: 14 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Very High Score: 0.733 • Rank: 2/16

→)(←

RESILIENCE (R) - Very Low Score: 0.134 • Rank: 15/16



MULTI-HAZARD EXPOSURE (MHE) - Low Score: 0.466 • Rank: 11/16



VULNERABILITY (V) - Very High Score: 0.933 • Rank: 2/16



COPING CAPACITY (CC) - Very Low Score: 0.200 • Rank: 13/16



Households without Internet **56.8%** 



Temporary Structures as Housing 17.72%



**RANK: 11 / 16 STATES** SCORE: 0.466



Raw MHE 0.511

MHE 0.466

**Relative MHE** 0.422

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 16.1%

**47** \$11.7 Million

**Critical Infrastructure Exposed:** 29.2%



Storm Surge + Sea Level Rise 16.9%

**4**9 \$11.8 Million

**Critical Infrastructure Exposed:** 35.4%



**Storm Surge** 3.2%



**Critical Infrastructure Exposed:** 6.3%



**Tropical Cyclone Wind** 100%

**289** \$19.1 Million

**Critical Infrastructure Exposed:** 100%

Tsunami



**Critical Infrastructure Exposed:** 6.3%

Earthquake 0.0%

**A** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%

Landslide

39.6%

**4** 115 \$7.30 Million

**Critical Infrastructure Exposed:** 47.9%



## VULNERABILITY (V)

#### RANK: 2 / 16 STATES ASSESSED **SCORE: 0.933**

RANK: 2/16 STATES ASSESSED

RANK: 13/16 STATES ASSESSED

RANK: 10/16 STATES ASSESSED

RANK: 6/16 STATES ASSESSED

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Ngatpang is primarily driven by Housing Type and Transportation and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.



#### Housing Characteristics

48.7% Households Using Biomass for Fuel

4.1% Households without Electricity

21.6% Households without Access to Public Water

1

SCORE: 0.933

1



#### Communication Assets

5.4% Households without Cell Phone

56.8% 63.5% Households Households without without Internet Computer

Household Composition and Disability

33.8% Households without Phone

SCORE: 0.666

40.5% Households without TV

6.2%

Percent Disabled



20.0% Households with Single Mother

1

40.0% Percent Over 65 Years of Age

SCORE: 0.400

SCORE: 0.200

#### Socioeconomic Status

18.9%

Percent of

with No

Vehicle

Households

\$7,402.26 Average Income (USD)

22.2% Percent No High School Diploma

6.6% Unemployment Rate

1

22.2% Population Earning Less than \$5.50 per



114

#### Housing Type and Transportation

3.1%

Quarters

Population

Living in Group

1 SCORE: 1.000

Institutionalized

3.1%

Population

day

17.7% 0.0%

Households Livina in Temporary Structures

Housing Structures with 10 or more Units

RANK: 1/16 STATES ASSESSED

0

0

3.5

Median

Number of

Persons per

Housing Unit

## COPING CAPACITY (CC)

RANK: 13 / 16 STATES ASSESSED SCORE: 0.200

RANK: 12/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



SCORE: 0.267



0

**Transportation Capacity** 

0.74 6 Road Density Ma (mi per square Dis mi) Ko

Maximum Distance to Koror (mi) **2.16** Average Distance to Port (mi)

1

National Disaster Preparedness Baseline Assessment: Palau



## **RESILIENCE (R)**

#### RANK: 15 / 16 STATES ASSESSED SCORE: 0.134

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:



Housing Type and Transportation



Housing Characteristics



Emergency Services Capacity



Transportation Capacity

### **KEY FACTORS INFLUENCING RESILIENCE**



#### Housing Type and Transportation

Populations living in temporary housing are more susceptible to damage and losses resulting from hazard impacts. In addition, higher density living situations such as multi-unit housing, populations residing in group living quarters or crowded housing increase susceptibility to negative consequences as a result of hazard exposure. Populations with limited vehicle access, and especially those living in isolated areas, are more likely to experience mobility challenges during an evacuation, and have difficulty accessing needed supplies and services before, during and after a hazard event.



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.



#### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 1 / 16 STATES ASSESSED SCORE: 0.557
	Sea Level Rise + Storm Surge	RANK: 6 / 16 STATES ASSESSED SCORE: 0.313
	Storm Surge	RANK: 9 / 16 STATES ASSESSED SCORE: 0.162
Q	Tropical Cyclone Wind	RANK: 1 / 16 STATES ASSESSED SCORE: 0.288
-Mp-	Earthquake •	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami	RANK: 9 / 16 STATES ASSESSED SCORE: 0.162
MÈ	Landslide	RANK: 1 / 16 STATES ASSESSED SCORE: 0.654



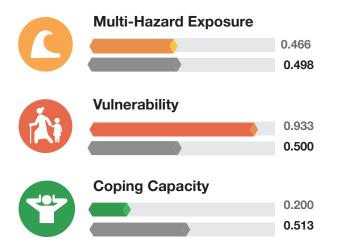
## MULTI-HAZARD RISK (MHR)

2/16 RANK WITHIN STATES Score: 0.733

Ngatpang's score and ranking are due to Low Multi-hazard Exposure combined with Very High Vulnerability and Very Low Coping Capacity scores.

Multi-hazard risk component scores **—** compared to overall average country scores:

STATES SCORE





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



## PALAU NGCHESAR

### NDPBA SUBNATIONAL PROFILE



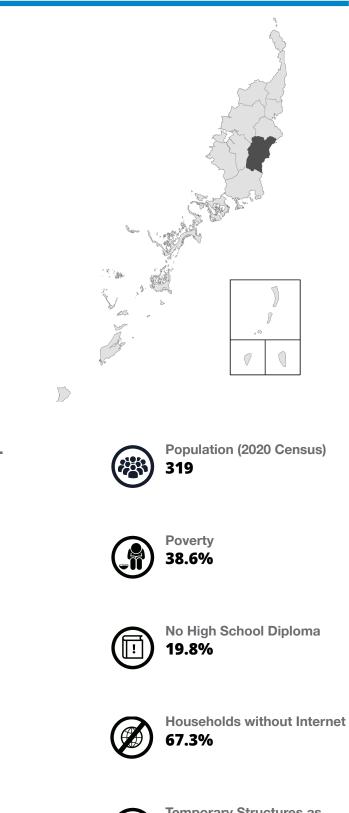
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: NGERSUUL** 

Area: 15 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -High Score: 0.596 • Rank: 4/16

→)(←

RESILIENCE (R) - Low Score: 0.334 • Rank: 12/16



MULTI-HAZARD EXPOSURE (MHE) - Low Score: 0.455 • Rank: 12/16



VULNERABILITY (V) - Very High Score: 1.000 • Rank: 1/16



COPING CAPACITY (CC) -Moderate Score: 0.667 • Rank: 6/16 Temporary Structures as Housing 7.92%

Raw MHE 0.422

**Relative MHE** 

MHE 0.455

0.488



**RANK: 12 / 16 STATES** SCORE: 0.455





Sea Level Rise 51.6%

**165** \$370,200

**Critical Infrastructure Exposed:** 42.9%



Storm Surge + Sea Level Rise 53.4%

**170** \$370,200

**Critical Infrastructure Exposed:** 42.9%



**Storm Surge** 20.6%

**4** 66

**Critical Infrastructure Exposed:** 9.5%



**Tropical Cyclone Wind** 100%

**319** 

\$12.3 Million

**Critical Infrastructure Exposed:** 100%



**Critical Infrastructure Exposed:** 9.5%

Earthquake

0.0%

**A** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%

Landslide



60.8%

**194** \$370,200

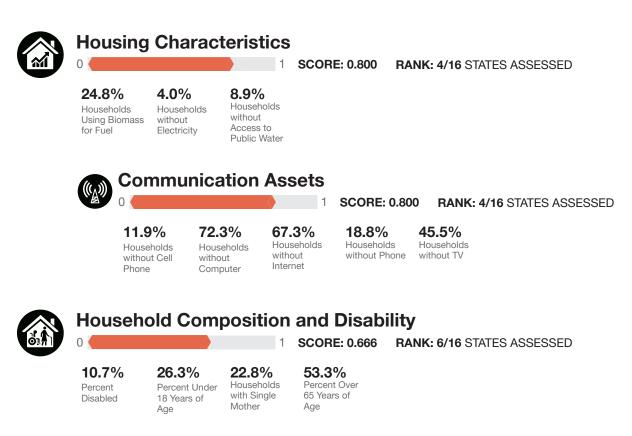
**Critical Infrastructure Exposed:** 57.1%





#### RANK: 1 / 16 STATES ASSESSED **SCORE: 1.000**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Ngchesar is primarily driven by Socioeconomic Status and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.





#### Socioeconomic Status

\$11,191.30 Average Income (USD)

19.8% Percent No High School Diploma

3.8% Unemployment Rate

1

38.6% Population Earning Less than \$5.50 per day

SCORE: 1.000



124

#### Housing Type and Transportation

1 SCORE: 0.200

3.2 Median Number of Persons per Housing Unit

21.8% Percent of Households with No Vehicle

0.0% Population Living in Group Quarters

Institutionalized Population

0.0% Households

7.9%

Livina in

Temporary

Structures

RANK: 1/16 STATES ASSESSED

Housing Structures with 10 or more Units

RANK: 10/16 STATES ASSESSED

0

## COPING CAPACITY (CC)

**RANK: 6 / 16 STATES ASSESSED SCORE: 0.667** 

RANK: 5/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



1 SCORE: 0.734



0

**Transportation Capacity** 

1.26 6 Road Density (mi per square mi)

Maximum Distance to Koror (mi)

0.80 Average Distance to

Port (mi)

**National Disaster Preparedness Baseline Assessment: Palau** 



## **RESILIENCE (R)**

#### RANK: 12 / 16 STATES ASSESSED SCORE: 0.334

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Socioeconomic Status

Housing Characteristics



Household Composition and Disability



Emergency Services Capacity

### **KEY FACTORS INFLUENCING RESILIENCE**



#### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 4 / 16 STATES ASSESSED SCORE: 0.315
	Sea Level Rise + Storm Surge	RANK: 5 / 16 STATES ASSESSED SCORE: 0.335
	Storm Surge	RANK: 4 / 16 STATES ASSESSED SCORE: 0.324
Q	Tropical Cyclone Wind	RANK: 5 / 16 STATES ASSESSED SCORE: 0.177
-Mp-	Earthquake Image: Contract Contra	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami	RANK: 4 / 16 STATES ASSESSED SCORE: 0.324
	Landslide	RANK: 3 / 16 STATES ASSESSED SCORE: 0.455

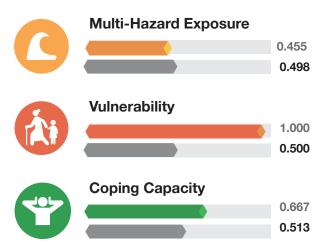


## MULTI-HAZARD RISK (MHR)

4 / 16 RANK WITHIN STATES Score: 0.596

Ngchesar's score and ranking are due to Low Multi-hazard Exposure combined with Very High Vulnerability and Moderate Coping Capacity scores.

Multi-hazard risk component scores STATES SCORE COUNTRY SCORE COUNTRY SCORE





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



## PALAU NGIWAL

### NDPBA SUBNATIONAL PROFILE



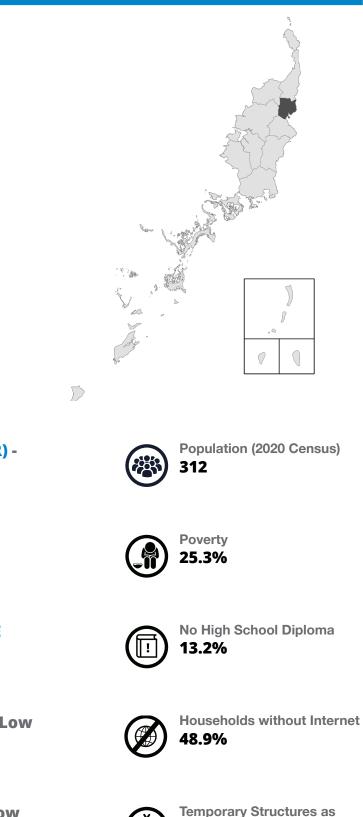
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: NGERKEAI** 

Area: 6 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -Moderate Score: 0.511 • Rank: 7/16

→)(←

**RESILIENCE (R) - Moderate** Score: 0.567 • Rank: 8/16



MULTI-HAZARD EXPOSURE (MHE) - High Score: 0.666 • Rank: 4/16



VULNERABILITY (V) - Very Low Score: 0.133 • Rank: 14/16



COPING CAPACITY (CC) - Low Score: 0.267 • Rank: 12/16 Temporary Structures as Housing 3.41%

MHE 0.666



**RANK: 4 / 16 STATES** SCORE: 0.666



Raw MHE 0.555

**Relative MHE** 0.777

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 56.2%



**Critical Infrastructure Exposed:** 80.0%



Storm Surge + Sea Level Rise 69.2%



216

**Critical Infrastructure Exposed:** 90.0%



**Storm Surge** 70.9%

**4** 221

**Critical Infrastructure Exposed:** 80.0%



**Tropical Cyclone Wind** 100%

**312** \$9.30 Million

**Critical Infrastructure Exposed:** 100%

Tsunami 70.7% 220

**Critical Infrastructure Exposed:** 80.0%



**191** \$9.30 Million

**Critical Infrastructure Exposed:** 60.0%

Landslide 0.0%

**A** 0

\$1.85 Million

**Critical Infrastructure Exposed:** 0.0%





## VULNERABILITY (V)

#### RANK: 14 / 16 STATES ASSESSED **SCORE: 0.133**

RANK: 13/16 STATES ASSESSED

RANK: 16/16 STATES ASSESSED

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Ngiwal is primarily driven by Household Composition and Disability and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.

SCORE: 0.200



#### Housing Characteristics

34.1% Households Using Biomass for Fuel

0.0% Households without Electricity

63.6% Households without Access to Public Water

1



#### Communication Assets 1

4.6% Households without Cell Phone

55.7% 48.9% Households Households without without Internet Computer

13.6% Households without Phone

SCORE: 0.000

23.9% Households without TV



#### Household Composition and Disability

SCORE: 0.800 RANK: 4/16 STATES ASSESSED

14.7% Percent Disabled

0

27.6% Percent Under 18 Years of Age

27.0% 80.0% Households with Single Mother Age

1

1

Percent Over 65 Years of

SCORE: 0.133



#### Socioeconomic Status

\$11,406.24 Average Income (USD)

1.7% 13.2% Percent No Unemployment Rate High School Diploma

25.3% Population Earning Less than \$5.50 per day



134

#### Housing Type and Transportation

1 SCORE: 0.000

3.6 Median Number of Persons per Housing Unit

10.2% Percent of Households with No Vehicle

0.0% Population Living in Group Quarters

3.4% Institutionalized Households Population Livina in Temporary

Structures

0.0% Housing Structures with 10 or more Units

RANK: 13/16 STATES ASSESSED

RANK: 14/16 STATES ASSESSED

0 🔶

## COPING CAPACITY (CC)

RANK: 12 / 16 STATES ASSESSED SCORE: 0.267

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



1



0

**Transportation Capacity** 

11

SCORE: 0.134 RANK: 14/16 STATES ASSESSED

**1.13** Road Density (mi per square mi)

Maximum Distance to Koror (mi) 4.39

Average Distance to

Port (mi)

National Disaster Preparedness Baseline Assessment: Palau



## **RESILIENCE (R)**

#### RANK: 8 / 16 STATES ASSESSED SCORE: 0.567

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Household Composition and Disability Housing Characteristics







Emergency Services Capacity

### **KEY FACTORS INFLUENCING RESILIENCE**



#### **Household Composition and Disability**

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.

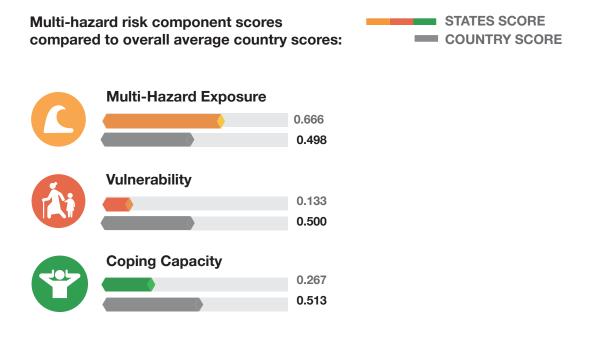
HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 5 / 16 STATES ASSESSED SCORE: 0.296
	Sea Level Rise + Storm Surge	RANK: 4 / 16 STATES ASSESSED SCORE: 0.335
	Storm Surge	RANK: 3 / 16 STATES ASSESSED SCORE: 0.365
Q	Tropical Cyclone Wind	RANK: 9 / 16 STATES ASSESSED SCORE: 0.086
	Earthquake	RANK: 4 / 16 STATES ASSESSED SCORE: 0.356
(G	Tsunami	RANK: 3 / 16 STATES ASSESSED SCORE: 0.365
MÈ	Landslide	RANK: 11 / 16 STATES ASSESSED SCORE: 0.058



### **MULTI-HAZARD RISK (MHR)**

7 / 16 RANK WITHIN STATES Score: 0.511

Ngiwal's score and ranking are due to High Multi-hazard Exposure combined with Very Low Vulnerability and Low Coping Capacity scores.





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global





www.pdc.org



ndpba.plw@pdc.org



## PALAU PELELIU

### NDPBA SUBNATIONAL PROFILE



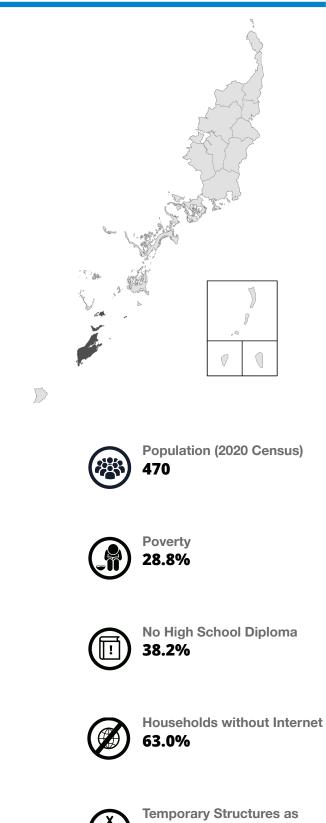
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: KLOULKLUBED** 

Area: 7 mi2



#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) -High Score: 0.592 • Rank: 5/16

→)((←

RESILIENCE (R) - Low Score: 0.467 • Rank: 10/16



MULTI-HAZARD EXPOSURE (MHE) - High Score: 0.711 • Rank: 3/16



VULNERABILITY (V) -Moderate Score: 0.600 • Rank: 7/16



COPING CAPACITY (CC) -Moderate Score: 0.534 • Rank: 8/16 Temporary Structures as Housing 9.62%

MHE 0.711



**RANK: 3 / 16 STATES** SCORE: 0.711



Raw MHE 0.778

**Relative MHE** 0.644

#### **ESTIMATED EXPOSURE TO EACH HAZARD:**



Sea Level Rise 44.9%

**211** \$4.29 Million

**Critical Infrastructure Exposed:** 22.2%



Storm Surge + Sea Level Rise 76.8%

**361** \$4.29 Million

**Critical Infrastructure Exposed:** 72.2%



**Storm Surge** 78.2%

**367** \$8.00 Million

**Critical Infrastructure Exposed:** 51.9%



**Tropical Cyclone Wind** 

100% **470** \$30.6 Million

**Critical Infrastructure Exposed:** 100%

Tsunami 76.8% **&** 361 \$8.00 Million

**Critical Infrastructure Exposed:** 51.9%



**A** 0 **\$0** 

**Critical Infrastructure Exposed:** 0.0%

Landslide 0.5%

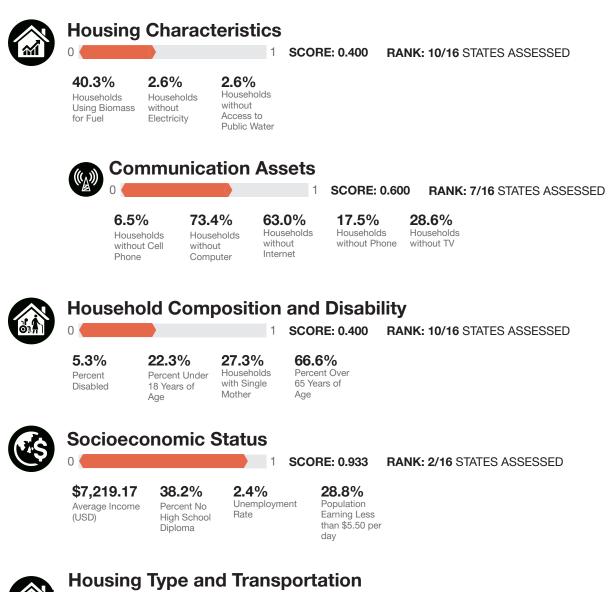


**Critical Infrastructure Exposed:** 11.1%



#### RANK: 7 / 16 STATES ASSESSED **SCORE: 0.600**

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Peleliu is primarily driven by Socioeconomic Status and Housing Characteristics. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.





144

# 1 SCORE: 0.333

3.0 Median Number of Persons per Housing Unit

18.8% Percent of Households with No Vehicle

1.1% Population Living in Group Quarters

1.1% Institutionalized Population

0.0% Households Temporary Structures

9.6%

Livina in

Housing Structures with 10 or more Units

RANK: 7/16 STATES ASSESSED

0

# COPING CAPACITY (CC)

RANK: 8 / 16 STATES ASSESSED SCORE: 0.534

RANK: 4/16 STATES ASSESSED

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



1 SCORE: 0.800



0

#### **Transportation Capacity**

2.74 12 Road Density (mi per square mi) Korce

Maximum Distance to Koror (mi) **0.79** Average Distance to Port (mi)





# **RESILIENCE (R)**

#### RANK: 10 / 16 STATES ASSESSED SCORE: 0.467

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Socioeconomic Status

Housing Characteristics



Emergency Services Capacity



Household Composition and Disability

## **KEY FACTORS INFLUENCING RESILIENCE**



#### Socioeconomic Status

Populations experiencing socioeconomic constraints lack the necessary financial resources to adequately prepare for or recover from a natural disaster. The unemployed, low-income households, and those receiving public assistance have little to no financial buffers that would facilitate preparedness actions such as stocking extra food and supplies, support recovery actions such as repairing homes after a disaster, or fund mitigation actions that would protect their homes and property from future hazard impacts.



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.



#### **Household Composition and Disability**

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.

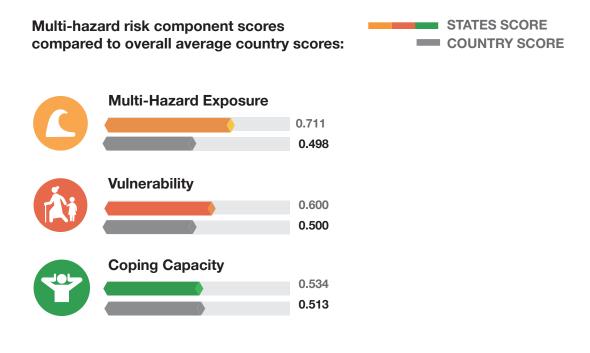
HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 6 / 16 STATES ASSESSED SCORE: 0.287
	Sea Level Rise + Storm Surge	RANK: 2 / 16 STATES ASSESSED SCORE: 0.402
	Storm Surge	RANK: 2 / 16 STATES ASSESSED SCORE: 0.408
Q	Tropical Cyclone Wind	RANK: 3 / 16 STATES ASSESSED SCORE: 0.225
-Mp-	Earthquake •	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami	RANK: 2 / 16 STATES ASSESSED SCORE: 0.408
MÈ	Landslide	RANK: 7 / 16 STATES ASSESSED SCORE: 0.190



## MULTI-HAZARD RISK (MHR)

5 / 16 RANK WITHIN STATES Score: 0.592

Peleliu's score and ranking are due to High Multi-hazard Exposure combined with Moderate Vulnerability and Moderate Coping Capacity scores.





Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global

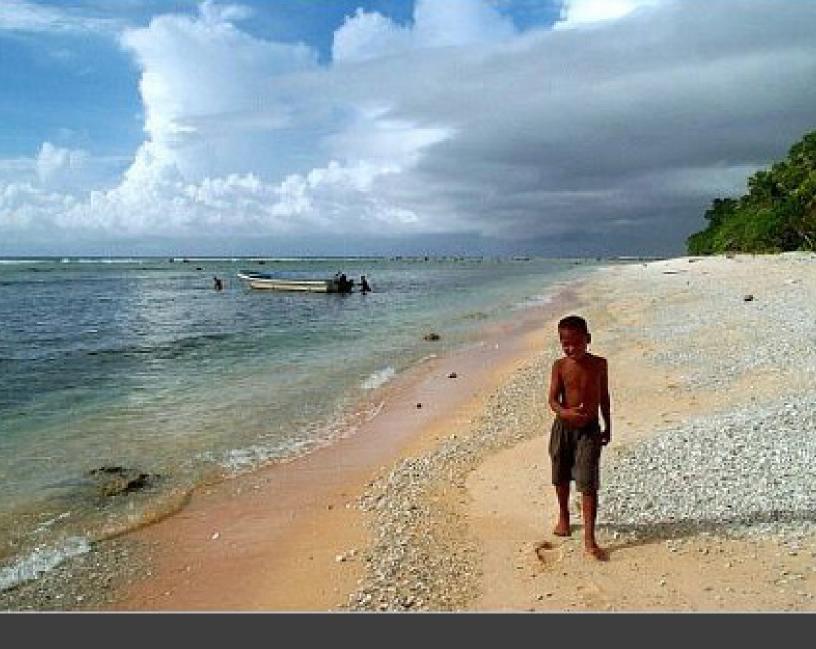




www.pdc.org



ndpba.plw@pdc.org



# PALAU SONSOROL

## NDPBA SUBNATIONAL PROFILE



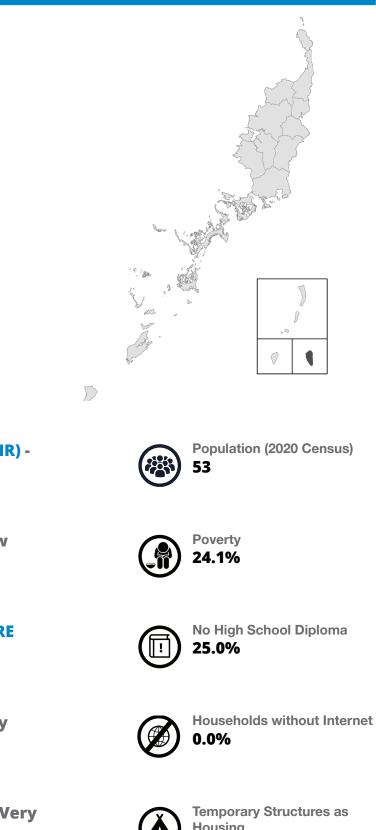
©2023 Pacific Disaster Center

STATE PROFILE



**CAPITAL: DONGOSARU** 

Area: 1 mi2



#### **RISK AND VULNERABILITY COMPONENT SCORE**



**MULTI-HAZARD RISK (MHR) -Very High** Score: 0.618 • Rank: 3/16

**RESILIENCE (R) - Very Low** Score: 0.101 • Rank: 16/16



**MULTI-HAZARD EXPOSURE** (MHE) - Very Low Score: 0.055 • Rank: 15/16

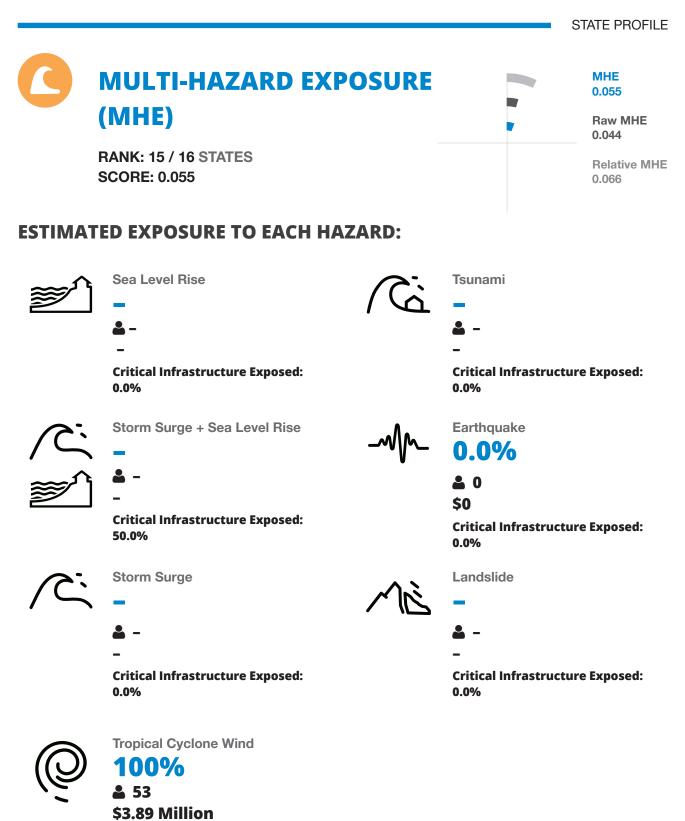


**VULNERABILITY (V) - Very** High Score: 0.866 • Rank: 3/16



**COPING CAPACITY (CC) - Very** Low Score: 0.067 • Rank: 15/16

Housing 0.00%



Critical Infrastructure Exposed: 100%



# VULNERABILITY (V)

#### RANK: 3 / 16 STATES ASSESSED **SCORE: 0.866**

RANK: 1/16 STATES ASSESSED

RANK: 13/16 STATES ASSESSED

Vulnerability measures the conditions and processes that increase susceptibility of communities and systems to the damaging effects of hazards. Vulnerability in Sonsorol is primarily driven by Housing Characteristics and Household Composition and Disability. The bar charts indicate the socioeconomic themes contributing to the overall Vulnerability score.

SCORE: 1.000



#### Housing Characteristics

94.1% Households Using Biomass for Fuel

94.1% Households without Electricity

64.7% Households without Access to Public Water

1



#### Communication Assets 1

41.2% Households without Cell Phone

88.2% 0.0% Households Households without without Internet Computer

Households without Phone

SCORE: 0.200

Households without TV



#### Household Composition and Disability

SCORE: 0.866 RANK: 3/16 STATES ASSESSED

3.8% Percent Disabled

0

47.2% Percent Under 18 Years of Age

28.6% Households with Single Mother

1

1

6.6% Percent Over 65 Years of Age

SCORE: 0.600

### Socioeconomic Status

\$8,261.88 Average Income (USD)

25.0% Percent No Rate High School Diploma

3.5% Unemployment

**24.1%** Population Earning Less

than \$5.50 per day



154

#### Housing Type and Transportation 0 🔶

1 SCORE: 0.000

3.5 Median Number of Persons per Housing Unit

100.0% Percent of Households with No Vehicle

0.0% Population Living in Group Population Quarters

0.0% Institutionalized Households Livina in Temporary

Structures

0.0% Housing Structures with 10 or more Units

RANK: 13/16 STATES ASSESSED

RANK: 7/16 STATES ASSESSED

# **COPING CAPACITY (CC)**

RANK: 15 / 16 STATES ASSESSED SCORE: 0.067

Coping Capacity measures the systems, means, and abilities of people and societies to absorb and respond to disruptions in normal function. The bar charts below indicate the socioeconomic themes contributing to the overall Coping Capacity score.



#### **Emergency Services Capacity**

1 SCORE: 0.067

SCORE: 0.067

RANK: 15/16 STATES ASSESSED

RANK: 15/16 STATES ASSESSED

205.05 Average Distance to Fire Station (mi) Shelter (mi)

169.63 Average Distance to

Average Distance to Health Facility (mi)

1

169.63



0

0.00

mi)

Road Density

(mi per square

**Transportation Capacity** 

217 Maximum Distance to

Koror (mi)

169.63 Average Distance to Port (mi)

**National Disaster Preparedness Baseline Assessment: Palau** 



# **RESILIENCE (R)**

#### RANK: 16 / 16 STATES ASSESSED SCORE: 0.101

Components of resilience are independent of natural hazard exposure. This type of measure helps rank states based on their likelihood of experiencing a disruption outside of a naturally occurring event.

#### Below are the four thematic areas with the weakest relative scores:





Housing Characteristics





Emergency Services Capacity



Transportation Capacity

## **KEY FACTORS INFLUENCING RESILIENCE**



#### **Housing Characteristics**

Households experiencing access constraints with regard to information, clean water and energy are challenged to maintain a standard of living that meets basic household needs. Facing significant demands on daily routines effectively limit response and recovery capacity and the ability to maintain livelihoods. Limited communications assets, such as no telephone service or access to the internet can impede the ability of households to receive and act upon urgent hazard warning information.



#### Household Composition and Disability

Single-parent households and those with dependent populations, such as the very young, elderly and the disabled may have more difficulty with mobilizing and evacuating in a timely fashion. The deaf or hard of hearing, for example, may not receive audible hazard alerts. Once evacuated, disabled populations and those with special needs will require additional services and care considerations in the response aftermath and during recovery. Ensure that plans and strategies include special accommodations for these populations.



#### **Emergency Services Capacity**

Societies establish capacities to manage emergencies that scale from day-to-day events up to catastrophes that impact all of society. Establishing and maintaining a broad range of systems and resources to support emergency services will increase the capacity for disaster management and response.



#### **Transportation Capacity**

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access affected populations. Improved transportation capacity supports the ability to distribute resources before, during, and after a disaster.

HAZ	ARD-SPECIFIC	RISK (HSR)
	Sea Level Rise	RANK: 15 / 16 STATES ASSESSED SCORE: 0.000
Ċ	Sea Level Rise + Storm Surge	RANK: 7 / 16 STATES ASSESSED SCORE: 0.270
	Storm Surge	RANK: 14 / 16 STATES ASSESSED SCORE: 0.000
Q	Tropical Cyclone Wind	RANK: 10 / 16 STATES ASSESSED SCORE: 0.079
-Mp	Earthquake	RANK: 6 / 16 STATES ASSESSED SCORE: 0.000
	Tsunami 🔶	RANK: 14 / 16 STATES ASSESSED SCORE: 0.000
	Landslide ♦	RANK: 13 / 16 STATES ASSESSED SCORE: 0.000



## MULTI-HAZARD RISK (MHR)

**3 / 16** RANK WITHIN STATES Score: 0.618

Sonsorol's score and ranking are due to Very Low Multi-hazard Exposure combined with Very High Vulnerability and Very Low Coping Capacity scores.

Multi-hazard risk component scores compared to overall average country scores: Multi-Hazard Exposure 0.055 0.498 Vulnerability 0.866 0.500 Coping Capacity 0.067 0.513



Better solutions. Fewer disasters.

# Safer vorder.

1305 N. Holopono Street Suite 2, Kihei, HI 96753 | P: (808) 891-0525 | F: (808) 891-0526



@PDC\_Global









ndpba.plw@pdc.org