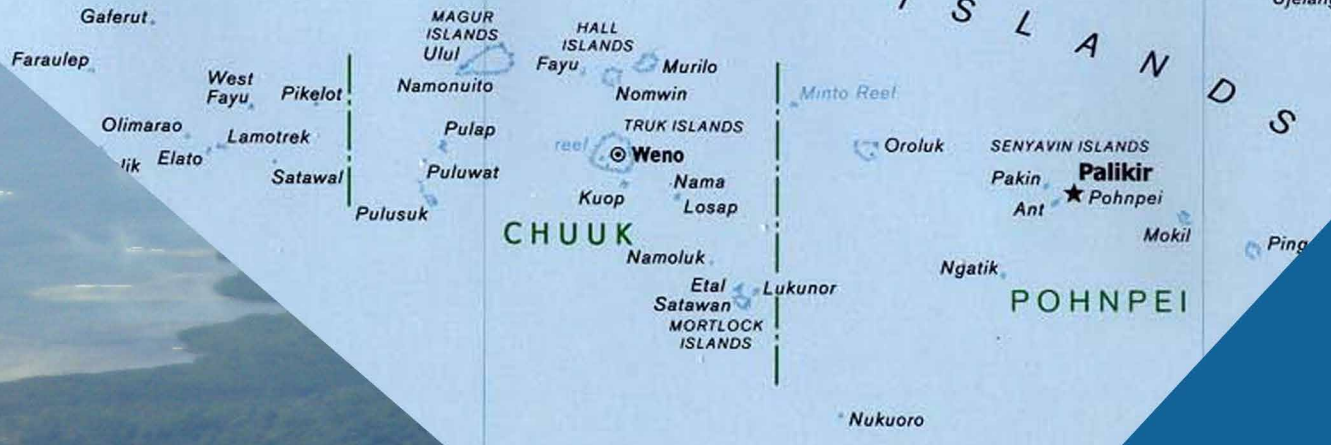


C A R O L I N E

I S L A N D S



# FEDERATED STATES OF MICRONESIA

## Disaster Management Reference Handbook

November 2016

## Cover and section photo credits

Cover Photo "Flying over Chuuk, Micronesia" by Matt Kieffer is licensed under CC BY-SA 2.0.  
<https://www.flickr.com/photos/mattkieffer/4019344657>

Cover Map Image: Federated States of Micronesia. Political.  
[http://www.lib.utexas.edu/maps/islands\\_oceans\\_poles/micronesia\\_pol99.jpg](http://www.lib.utexas.edu/maps/islands_oceans_poles/micronesia_pol99.jpg)

Country Overview Section Photo: "Founding Day 2005" COM-FSM cultural celebration by Dana Lee Ling is licensed under CC by 2.0. April 5, 2005.  
<https://www.flickr.com/photos/danaleeling/8975072970>

Disaster Overview Section Photo: "spac0656: Super Typhoon Maysak Strengthening in the Western Pacific Ocean (March 2015)" by NOAA Photo Library is licensed under CC BY 2.0.  
<https://www.flickr.com/photos/naaphotolib/20386049560>

Organizational Structure for Disaster Management Section Photo "110706-N-KB563-177" U.S. Pacific Fleet is licensed under CC BY-SA 2.0. Boatswain's Mate 1st Class speaks with Red Cross Director, Sizue Yoma at the Micronesia Red Cross Society national office during Pacific Partnership 2011. U.S. Navy photo by Mass Communication Specialist 2nd Class Michael Russell/Released. Pohnpei, Federated States of Micronesia July 6, 2011.  
<https://www.flickr.com/photos/compacflt/5909411178/in/album-72157627103628936/>

Infrastructure Section Photo: "Typhon Maysak Relief and Reconstruction" by Steven Rynecki (USAID Asia) is licensed under CC BY-NC 2.0  
<https://www.flickr.com/photos/usaidasia/18664225493>

Health Section Photo: "110712-O-ZZ999-018" Pacific Partnership 2011 medical civil action project sites at Pohnpei Hospital, Federated States of Micronesia. is licensed under CC BY-SA 2.0. Photo by Kristopher Radder.  
<https://www.flickr.com/photos/navalsurfaceforces/5951715990>

Women, Peace, and Security Section Photo: "Vaine Wichman, President CINCW (Cook Islands)" by UN WOMEN Pacific is licensed under CC BYSA 2.0. 2013 Civil Society Advisory Group (CSAG) Inaugural Meeting.  
[https://www.flickr.com/photos/un\\_women\\_pacific/13679032123](https://www.flickr.com/photos/un_women_pacific/13679032123)

Conclusion Section Photo: "110703-O-ZZ999-004" by Kristopher Radder (U.S. Pacific Fleet) is licensed under CC BY-SA 2.0. An MH-60S Sea Hawk flies over the port of Pohnpei, Federated States of Micronesia that was the final stop for Pacific Partnership 2011.  
<https://www.flickr.com/photos/compacflt/5895999601/in/faves-63479458@N04/>

Appendices Section Photo: "IMG\_3529: Yapese Stone Money in the Stone Money Bank" by stevenson\_john is licensed under CC BY-SA 2.0.  
[https://www.flickr.com/photos/stevenson\\_john/10236839835](https://www.flickr.com/photos/stevenson_john/10236839835)

# Table of Contents

<b>Welcome - Note from the Director .....</b>	<b>9</b>
<b>About the Center for Excellence in Disaster Management &amp; Humanitarian Assistance .....</b>	<b>10</b>
<b>Disaster Management Reference Handbook Series Overview .....</b>	<b>11</b>
<b>Executive Summary.....</b>	<b>12</b>

<b>Country Overview.....</b>	<b>14</b>
Culture .....	15
Demographics.....	15
Ethnic Makeup.....	16
Key Population Centers (Yap, Chuuk, Pohnpei, Kosrae) .....	16
Language.....	19
Religion .....	19
Vulnerable Groups .....	19
Economics .....	22
Environment.....	22
Geography .....	22
Maritime Security .....	24
Climate .....	24

<b>Disaster Overview .....</b>	<b>26</b>
Hazards.....	26
Recent History of Natural Disasters.....	27
Climate Change.....	29
Infectious Disease .....	30
Endemic Conditions .....	30

  
**Organizational Structure for Disaster Management .....32**

Humanitarian Response Depot .....	35
Disaster Management Organizations in FSM .....	35
Community Based Disaster Risk Management in FSM .....	36
U.S. Government Agencies.....	36
International Agencies and Donors Assisting with DRM.....	37
Foreign Disaster Relief and Emergency Response .....	37
Laws, Policies, and Plans on Disaster Management .....	37
Education and Training.....	39
Disaster Management Communications.....	40
Responsible Agencies for Flood and Storm Warning .....	40
Early Warning Systems.....	41
Military Role in Disaster Relief.....	42
Foreign Assistance and International Partnering.....	42

  
**Infrastructure.....46**

Airports.....	47
Seaports .....	48
Land Routes .....	48
Roads.....	48
Railways.....	48
Waterways.....	48
Schools .....	48
Communications.....	49
Utilities.....	50
Power .....	50
Water and Sanitation.....	50

<b>Health .....</b>	<b>52</b>
Overview .....	52
Healthcare System.....	52
Challenges in the Healthcare System.....	52
Communicable Diseases .....	54
Non-Communicable Diseases .....	55
Cooperation for Health.....	55
<b>Women, Peace, and Security.....</b>	<b>58</b>
<b>Conclusion.....</b>	<b>60</b>
<b>Appendices .....</b>	<b>62</b>
Department of Defense DMHA Engagements (FY 2010-2016).....	64
Force Protection/Pre-Deployment Information .....	64
Passport/Visa.....	64
Currency Information.....	64
Emergency Contact Information .....	64
Travel Health Information.....	65
Hyogo Framework for Action Country Progress Report .....	66
Micronesia Government Ministries, Offices and Committees .....	69
Government .....	69
Participation in International Organizations.....	70
Country Profile .....	73
Acronyms and Abbreviations .....	80
References (Endnotes) .....	82

---

## List of Figures

Figure 1: Map of the Federated States of Micronesia.....	14
Figure 2: Federated States of Micronesia Detail Map (Yap, Chuuk, Pohnpei, Kosrae) .....	16
Figure 3: Nationally Defined Hardship.....	20
Figure 4: Pacific Island Countries Measures for Poverty Incidence Against National Lines...	21
Figure 5: Index for Risk Management for FSM .....	26
Figure 6: Emergency Response of Tropical Cyclone Maysak .....	27
Figure 7: Estimated Percentage of Total Deaths Caused by Non-Communicable Diseases..	55
Figure 8: Hyogo Framework for Action Level of Progress.....	66
Figure 9: Secretariat of the Pacific Community Development Goals.....	71

---

## List of Tables

Table 1: FSM Country Overview at a Glance.....	15
Table 2: Infrastructure Investment Program for FSM.....	46
Table 3: List of Airports in FSM .....	47
Table 4: HFA Country Progress Report Priorities and Progress Achieved.....	67
Table 5: HFA Country Progress Report Future Outlook Areas .....	68
Table 6: Pacific Island Forum Strategic Objectives .....	72

---

## List of Photos

Photo 1: Yap Traditional Dress and Culture.....	17
Photo 2: Houses Blown Apart by Typhoon Maysak, Ulithi Atoll, Yap, FSM.....	17
Photo 3: View of Chuuk, FSM .....	18
Photo 4: View of Pohnpei .....	18
Photo 5: Kosrae, Micronesia.....	19
Photo 6: Relief Supplies Delivered from Pre-Positioned Warehouses in Micronesia .....	35
Photo 7: Pacific Patrol Boat Program.....	44
Photo 8: Wall Weave Used in Traditional Yap Houses .....	47
Photo 9: School Rehabilitation Project.....	49

Photo 10: Health Management Outreach, Pacific Partnership 2015 ..... 56  
Photo 11: Pacific Partnership 2015 Community Engagement..... 62

# Disclaimer

This report has been prepared in good faith based primarily on information gathered from open-source material available at the date of publication. Most of the information used was from United States (U.S.) or other government sources and is thus considered to be in the public domain. Such sources include the Central Intelligence Agency (CIA) Fact Book, U.S. Department of State (DOS), and foreign government's web pages. Where possible, a link to the original electronic source is provided in the endnote (reference) section at the end of the document. Other sources used include Non-Governmental Organization (NGO) home pages, Relief Web, United Nations Development Program (UNDP) or other United Nations (UN) agency web pages, World Bank, and Asian Development Bank (ADB). While making every attempt to ensure the information is relevant and accurate, Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) does not guarantee or warrant the accuracy, reliability, completeness or currency of the information in this publication.



# Welcome - Note from the Director

Dear Reader,

CFE-DM provides education, training and research about disaster management and humanitarian assistance, particularly in international settings that require coordination between the Department of Defense (DOD) and civilian agencies. In line with its charter, CFE-DM has created reference books on disaster management roles, processes, capabilities and vulnerabilities. This Disaster Management Reference Handbook Series is designed to provide decision makers, planners and responders a baseline of understanding of national disaster management plans and structures, including information on key domestic disaster response entities, basic regional background, and local and international humanitarian organizations present in the region. The Indo-Asia-Pacific region remains the region with the highest number of natural disasters, accounting for over 41 percent of the world's disasters.<sup>1</sup> More disaster related deaths occur in this region (almost 89 percent of the global total),<sup>2</sup> and more people have been affected by disasters in the region (80 percent of the global total from 2005-2014).<sup>3</sup> These handbooks provide a context for country and regional-specific factors that influence disaster management.



Sincerely,

Joseph D. Martin  
Director

# Information about the Center for Excellence in Disaster Management and Humanitarian Assistance

## Overview

CFE-DM is a U.S. DOD organization that was established by U.S. Congress in 1994. The Center is a direct reporting unit to U.S. Pacific Command and is located on Ford Island, Joint Base Pearl Harbor-Hickam, Hawaii.

CFE-DM was founded as part of the late Senator Daniel K. Inouye's vision. The Senator had witnessed the effects of Hurricane Iniki that struck the Hawaiian Islands in 1992, and felt the civil-military coordination in the response could have been more effective. He set about to establish CFE-DM to help bridge understanding between civil and military responders, and to provide a DOD platform for building Disaster Management and Humanitarian Assistance (DMHA) awareness and expertise in U.S. forces, and with partner nations in the Asia-Pacific. While maintaining a global mandate, the Asia-Pacific region is our priority of effort and collaboration is the cornerstone of our operational practice.

## Mission

The Center's mission is to advise U.S. Pacific Command leaders; enable focused engagements, education and training; and increase knowledge of best practices and information to enhance U.S. and international civil-military preparedness for disaster management and humanitarian assistance.

## Vision

CFE-DM exists to save lives and alleviate human suffering by connecting people, improving coordination and building capacity.

## Contact Information

Center for Excellence in Disaster Management  
and Humanitarian Assistance  
456 Hornet Ave  
JBPHH HI 96860-3503  
Telephone: (808) 472-0518  
<https://www.cfe-dmha.org>

# Disaster Management Reference Handbook Series Overview

The Disaster Management Reference Handbook Series is intended to provide decision makers, planners, responders and disaster management practitioners with an overview of the disaster management structure, policies, laws, and plans for each country covered in the series. Natural and man-made threats most likely to affect the country are discussed. The handbooks also provide basic country background information, including cultural, demographic, geographic, infrastructure and other relevant data.

Conditions such as poverty, water and sanitation, vulnerable groups and other humanitarian issues are included. A basic overview of the health situation in the country and disease surveillance is also covered. The handbooks include information on key national entities involved in disaster management, disaster response and preparation, and the military's role in disaster relief. Information on United Nation agencies, international NGOs, major local NGOs, and key U.S. agencies and programs in the country, are also provided.

The overall aim is to offer a guide that brings together important information about disaster management and response for each country in an effort to provide a basic understanding for the reader. Information in the handbooks are compiled and based primarily on trusted, reliable, publicly available sources. Much of the information used is from U.S. or other government sources, United Nation sources, NGO websites, scholarly references, foreign government websites, and various media sources. When available, a link to the original internet source is provided.

Each handbook is a working document and will be updated periodically as new, significant information becomes available. We hope that you find these handbooks informative, relevant, reliable, and useful in understanding disaster management and response for this country. We welcome and appreciate your feedback to improve this document and help fill any gaps to enhance its future utility. Feedback, comments, or questions can be emailed to [cfe-dmha.fct@pacom.mil](mailto:cfe-dmha.fct@pacom.mil). You may also contact the Center for Excellence at: (808) 472-0518. Please visit our website (<https://www.cfe-dmha.org>) to view the latest electronic versions available or to request a hard copy of a disaster management reference handbook.

# Executive Summary

A natural disaster is 30 times more likely to occur in the Pacific Islands than in the U.S.<sup>4</sup> The pressing issues include the region's vulnerability to disasters and the impacts of climate change. Even small disasters can overwhelm small-island economies like the Federated States of Micronesia (FSM). Many communities in FSM are being displaced due to rising sea levels. The Pacific is also dealing poverty issues, urbanization and population growth.<sup>5</sup>

FSM has assessed risk hazards including coastal erosion, rising sea level, storm surge, flood, tsunami, tropical cyclone, drought, earthquake, epidemic, and secondary impacts such as landslides.<sup>6</sup> In addition, fires, water shortages, and food shortages have also occurred during severe dry events.<sup>7</sup> People living in these small island states are vulnerable to slow-onset and rapid-onset disasters related to climate change, including rising sea levels, and shifting rainfall and storm patterns. Many of the region's villages have not developed formal disaster response training, leaving families unprepared to survive catastrophic events.<sup>8</sup> Typhoon Maysak tore through the islands of FSM in March 2015 causing fatalities, damaging houses, crops, and public infrastructure, and causing millions of dollars in damage. Nearly 30,000 or almost one third of FSM's population was affected and rebuilding efforts are still ongoing.<sup>9</sup>

FSM faces geographic challenges; it consists of over 600 islands (76 inhabited), and four states, spread over approximately 1500 nautical miles. The widely dispersed islands present a unique challenge to governance, service delivery, and communication in relation to disaster management.<sup>10</sup> Remoteness of outer island and lagoon communities is a constraint. As a result, knowledge and awareness of issues such as climate change and disaster risk reduction (DRR) is low (despite them often being the most vulnerable to hazards). There is little activity in regards to direct community mobilization for Disaster Risk Management (DRM). For example, there lacks a designated leader for facilitating development of village level DRM plans.<sup>11</sup>

Food and water security are among FSM's prevailing concerns. Drinking water sources are not stable and food availability is dependent on imports. Drought and marine inundation by high sea level may damage soil, food resources, and drinking water. High tides often inundate coastal

communities throughout FSM and have in the past lead to a nationwide state of emergency and subsequent aid.<sup>12</sup> Agriculture, infrastructure, and social and economic development are also affected by disasters. Chronic coastal erosion threatens the tourism industry, which in turn makes FSM more reliant on aid. A number of hazards are related to the health sector, such as communicable and non-communicable diseases.<sup>13</sup>

Capacity levels vary by four states in FSM. Capacity at the state level is determined largely by the existence of State Disaster Coordination Officers and the nature of their background, training and experience. All four States have recently built new buildings to serve as Emergency Operations Centers (EOCs).<sup>14</sup>

Under the Compacts of Free Association (COFA) between the U.S. Government and the Governments of FSM and the Republic of the Marshall Islands (RMI), the United States Agency for International Development (USAID) provides supplementary assistance to disaster management and reconstruction efforts for these independent nations.<sup>15</sup> USAID has the lead responsibility for disaster mitigation, relief and reconstruction in FSM under the COFA.<sup>16</sup>

A multi-hazard risk assessment is available for planning and development decisions. This is the Multi-State Multi-Hazard Mitigation Plan, prepared in 2005 in compliance with Federal Emergency Management Agency (FEMA) regulations. This is the main statutory item dealing specifically with the issue of DRR. FSM's Multi-State Multi-Hazard Mitigation Plan contains national and state level mitigation plans for all hazards. In 2009 a National Climate Change Policy was also developed.<sup>17</sup>

FSM has a National Disaster Act and a National Disaster Plan but lacks a National Action Plan.<sup>18</sup> There is little implementation of the mitigation measures contained in the Multi-State Multi-Hazard Mitigation Plan at national and state levels. There is a demonstrated need for greater cooperation and coordination between national and state levels in terms of operations and increases the need for the implementation of DRR into sector plans.<sup>19</sup>



# FEDERATED STATES OF MICRONESIA

## Country Overview

Disaster Management Reference Handbook | November 2016

# Country Overview

Often referred to as Micronesia, FSM is geographically located in Oceania, in the North Pacific Ocean. FSM is comprised of four states (Yap, Chuuk, Pohnpei, and Kosrae) which are a grouping of over 600 small islands in the Western Pacific about 2,500 miles southwest of Hawaii. The closest countries to FSM are the Republic of Palau in the west and RMI in the east.<sup>20</sup> This is also known as the Eastern and Western Caroline Islands. While the country's total land area is relatively small, consisting of 270.8 square miles (sq. mi.), it occupies more than 1 million sq. mi of the Pacific Ocean, and ranges 1,700 miles from Yap in the west, to Chuuk, Pohnpei, and Kosrae to the east (Figure 1).<sup>21</sup>

Each of the four states center around one or more main islands, but all include smaller islands. The state of Kosrae includes numerous atolls. Chuuk State has a total land area of 49.2 sq. mi and includes seven major island groups. Pohnpei State has 133.4 sq. mi of land area, of which 130 is accounted for by Pohnpei island, the

largest in FSM. Yap State is made up of 4 large islands, 7 small islands and 134 atolls, with a total land area of 45.6 sq. mi. Kosrae is essentially one high island of 42.3 sq. mi.<sup>22</sup> Located in the Western Caroline Islands, about midway between Guam and Palau, is comprised of the main islands of Yap, Gagil-Tomil, Map, and Rumung. Yap State stretches eastward, for approximately 1,200 additional kilometers (km) and includes 134 outer islands, most of them low-lying atolls. While the state covers a vast expanse of ocean, the land area is only 120 sq. mi.<sup>23</sup> On the main islands of each state (Kosrae, Pohnpei, Chuuk, and Yap) are modern developing communities; on the atoll islets are low-technology, traditional communities dependent on fishing, agro-forestry, groundwater, and rainfall.<sup>24</sup>

In 1947, the United Nations created the Trust Territory of the Pacific Islands (TTPI). The TTPI consisted of Pohnpei, Kosrae, Chuuk, Yap, Palau, the Marshall Islands, and the Northern Mariana Islands. The U.S. acted as the Trustee, to promote economic advancement and self-sufficiency of the inhabitants. Following a Constitutional Convention in 1978, the people of Pohnpei, Kosrae, Yap, and Chuuk voted to form FSM.

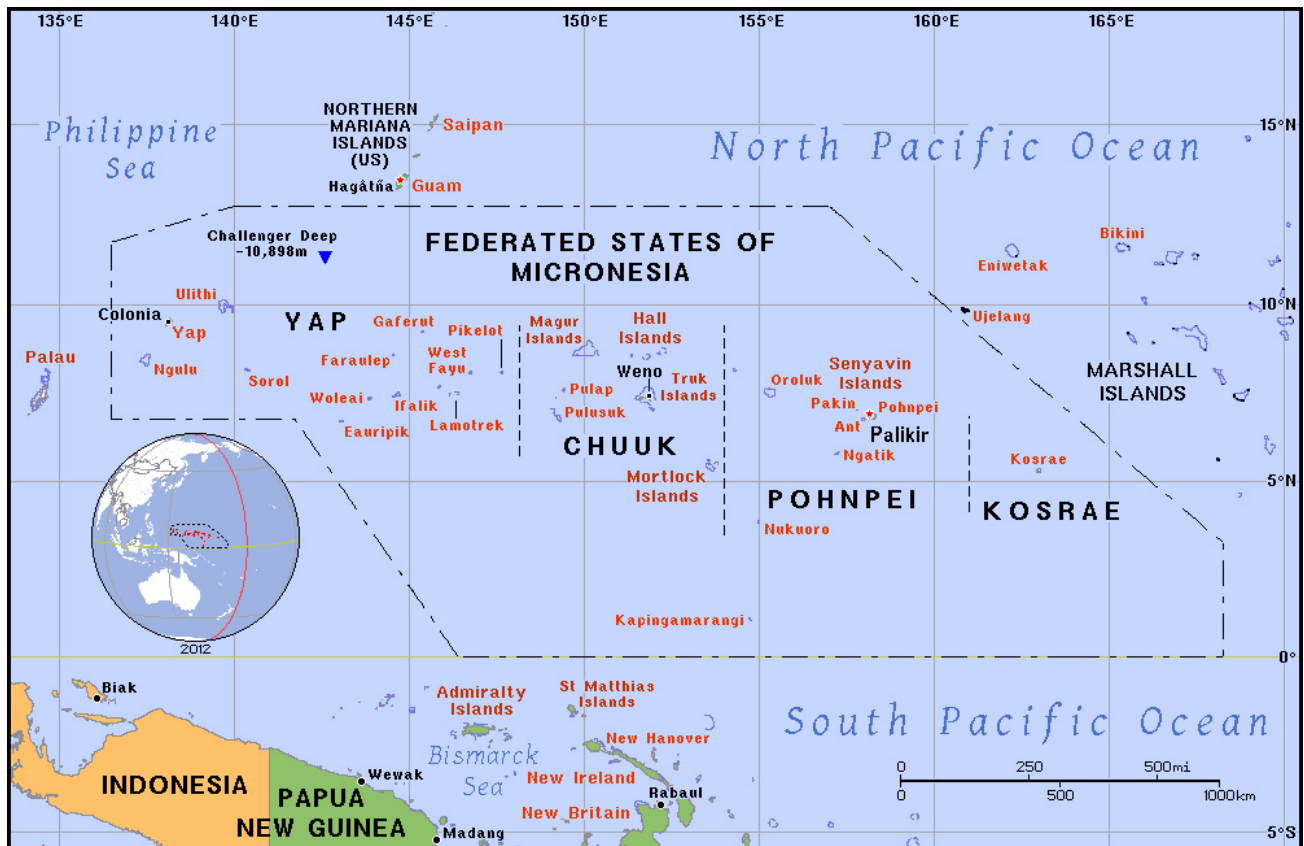


Figure 1: Map of the Federated States of Micronesia

Though not interested in becoming part of the state of Micronesia, The nations of RMI and Palau formed republics themselves in 1979 and 1981. Later, all three nations entered into a COFA agreement with the U.S. Effective in November 1986, the COFA agreement allowed FSM to have independence and an internal self-government. Through the Compact the U.S. agreed to provide defense, external security, and financial assistance to FSM.<sup>25</sup>

## Culture

The nation of FSM has a diverse culture, varying between individual islands and states. This diversity is due mostly to geographical distances between islands, and historical periods of foreign occupation and interference. Though the land area of FSM is only 702 sq. km, the islands span over a million miles of ocean; these vast distances caused unique cultures to develop in each state. Despite this diversity, some common traditions are present in every state.

For example, there is importance placed on the extended family and the clan system, as well as a rich oral history of songs and stories.<sup>26</sup>

The four states have distinct cultures, traditions and identities. Chuuk is renowned for its wreck diving; Yap is the most traditional state, resisting Western influences; Kosrae has a beautiful landscape; and Pohnpei is home to ancient ruins and landforms.<sup>27</sup> Table 1 shows FSM's country overview at a glance.

## Demographics

Understanding the demographic context of FSM provides insight into socio-cultural factors that affect disaster management effectiveness and disaster vulnerabilities. It is important to reflect gender, ethnicity, vulnerable groups, and economics in the planning and implementation of disaster preparedness, mitigation, and response activities to address gaps and risks.

<b>Area:</b>	702 sq. km (271 sq. miles) <sup>28</sup>
<b>Population:</b>	104,719 (July 2016 est.) <sup>29</sup>
<b>Neighbors:</b>	Commonwealth of the Northern Mariana Islands (U.S. territory), RMI, Palau, and Papua New Guinea. <sup>30</sup>
<b>Ethnic Groups:</b>	Chuukese/Mortlockese 49.3%, Pohnpeian 29.8%, Kosraean 6.3%, Yapese 5.7%, Yap outer islanders 5.1%, Polynesian 1.6%, Asian 1.4%, other 0.8% (2010 est.) <sup>31</sup>
<b>Language:</b>	English (official and common), Chuukese, Kosraen, Pohnpeian, Yapese, Ulithian, Woleaian, Nukuoro, Kapingamarangi and other Micronesian Languages. <sup>32</sup>
<b>Religion:</b>	50% Roman Catholic, 47% is Protestant, 3% other. <sup>33</sup>
<b>Time Zone:</b>	Yap and Chuuk States GMT (Greenwich Mean Time) +10, Pohnpei and Kosrae +11 <sup>34</sup>
<b>Capital City:</b>	Palikir (located on Pohnpei) <sup>35</sup>
<b>Primary Seaport:</b>	Kolonia (Pohnpei) <sup>36</sup>
<b>Primary Airports:</b>	Pohnpei International Airport, Chuuk International Airport, Kosrae International Airport, Yap International Airport
<b>Currency:</b>	U.S. Dollar
<b>Government Type:</b>	Federal republic in free association with the U.S. <sup>37</sup>
<b>Electricity:</b>	Electrification - Total population: 59 % (Urban areas: 100%; Rural areas: 45 % (2012) <sup>38</sup>
<b>Military:</b>	No regular military forces; defense is the responsibility of the U.S. <sup>39</sup>

Table 1: FSM Country Overview at a Glance

## Ethnic Makeup

The majority of the people of FSM are ethnically Micronesian; however, because of the diversity of the islands, there are cultural and linguistic differences between the citizens, and are therefore classified ethnically by island. There are four major groups: the Chuukese/Mortlockese (49.3%) (the majority of the population resides on Chuuk); Pohnpeians (29.8%); Kosraeans (6.3%); and Yapese (5.7%). Minority ethnic groups include Yap outer islanders (5.1%), Polynesians (1.6%), and Asians (1.4%). There is a small percent of Micronesians with Japanese ancestry due to the period of Japanese occupation after WWII.<sup>40</sup>

## Key Population Centers (Yap, Chuuk, Pohnpei, Kosrae)

The population of FSM is 104,719 (July 2016 est.).<sup>41</sup> Yap has a population of 11,377. Chuuk (formerly Truk) is the most populated state, with a population of approximately 48,654 (2010). Pohnpei (formerly Ponape) has a population of 36,196; and Kosrae (formerly Kusaie) has a population of 6,616 (2010).<sup>42</sup> Other major cities include Kolonia and Nan Madol, both located on Pohnpei. Figure 2 shows an extended map FSM.<sup>43</sup>

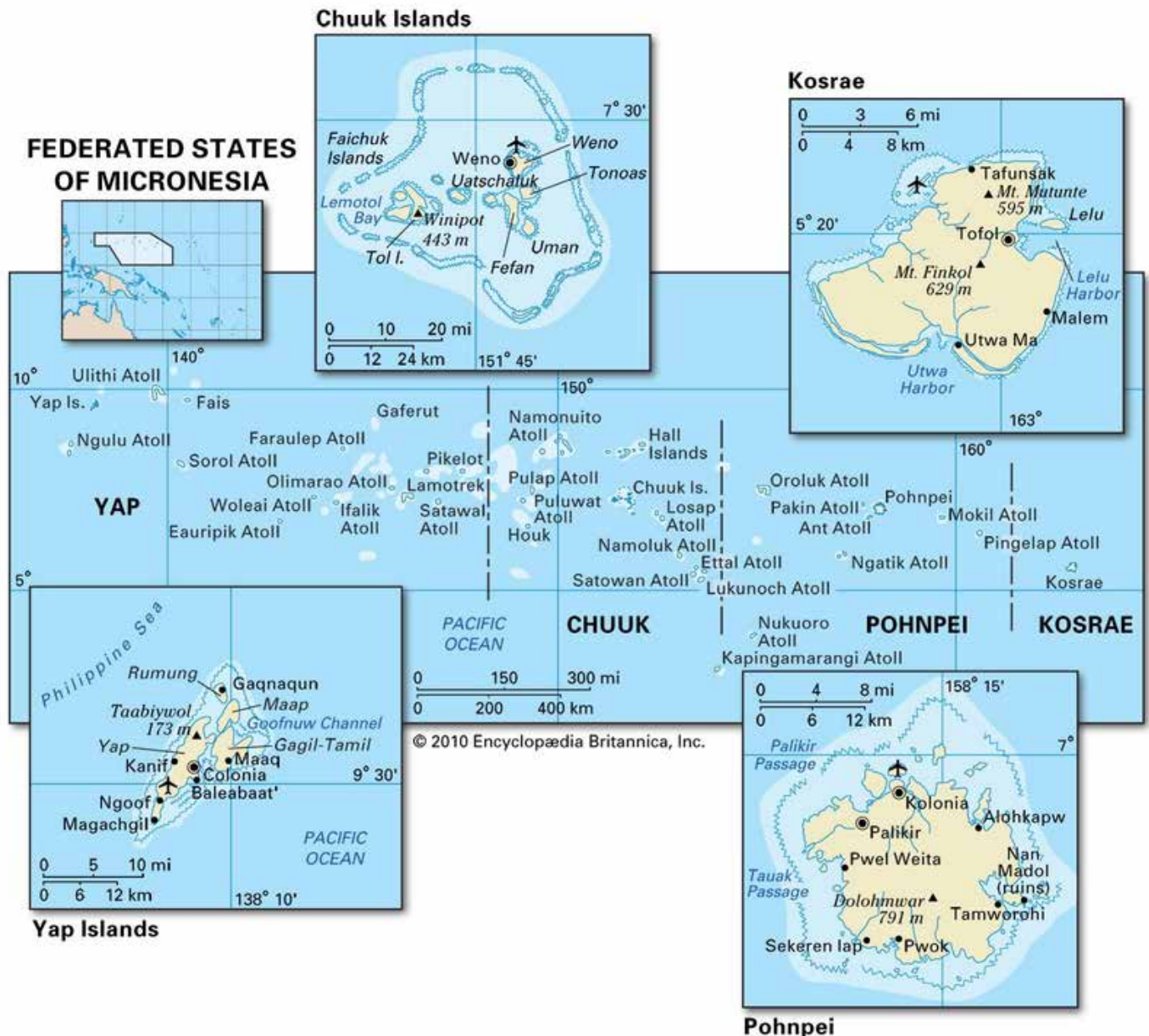


Figure 2: Federated States of Micronesia Detail Map (Yap, Chuuk, Pohnpei, Kosrae)





Photo 1: Yap Traditional Dress and Culture



Photo 2: Houses Blown Apart by Typhoon Maysak, Ulithi Atoll, Yap, FSM

### Yap

Yap is located in the Western Caroline Islands, about midway between Guam and Palau. Yap is comprised of the main islands of Yap, Gagil-Tomil, Map, and Rumung. Colonia is the capital and center of business and government; it is a small town situated along the waterfront and around a bay. A number of hotels are located in the Colonia area and are within walking distance of major stores, handicraft shops, and the post office. Other hotels are located in quiet peaceful locations beyond the state center. English is the business language, while Yapese and outer island languages remain the mother language.<sup>44</sup>

Yap is famous for its stone money, known locally as raay in Yapese. This is a type of traditional currency whose value lies in the oral history of the piece. They are large, round stones with holes in the middle; the size ranges between 12 inches to 13 ft. in diameter. Yap is also the only island to still wear the traditional clothing of grass skirts and loin cloths, and maintains a strong emphasis on the caste system.<sup>45</sup> Photo 1 depicts the traditional clothing of a girl as she is demonstrating the art and culture of traditional basket weaving in Baleabaat, Yap.<sup>46</sup> The photo also shows an example of the large stone money in the background.

The majority of all land and beaches in Yap are private property and visitors should obtain permission or be accompanied by guides prior to exploring beyond the roads. Many visitors to Yap come to dive.<sup>47</sup>

Yap is prone to natural disasters. In March 2015, Typhoon Maysak tore through the islands of Yap and Chuuk. Photo 2 demonstrates the devastation caused by the Typhoon days after it impacted the islands of Yap.<sup>48</sup>

### Chuuk

Chuuk State, consists of 11 high mangrove-fringed islands in the Chuuk lagoon, and a series of 14 outlying atolls and low islands surrounding the lagoon. The main islands, Weno, Tonoas, Uman and Fefan are located in Chuuk Lagoon. The lagoon, still referred to as Truk Lagoon, is one of the largest enclosed lagoons in the world, circled by a 225-kilometer long barrier reef, and covering an area of 2,129 sq. km. Chuuk is well known for its diving. Chuuk's outer islands composed of the Mortlocks, Halls, and Western island groups, are small, low-lying coral atolls reachable by boats and planes.<sup>49</sup> Chuukese society has a heavy emphasis on clan and family

structures, while the importance of the clan on islands like Kosrae has largely diminished over time.<sup>50</sup> Photo 3 shows a view of Chuuk, FSM.<sup>51</sup>

### *Pohnpei*

Located about halfway between Honolulu and Manila, Pohnpei lies in the middle of the Eastern



Photo 3: View of Chuuk, FSM

Caroline Islands. It is the largest island in FSM; it has a rugged interior and is of volcanic origin. Its main features of topography are the outer barrier reef, the intertidal lagoon, the fringe reef and mangrove forest, the lowland area on the outer edges of the island, and the central mountain rain forests. Pohnpei state is divided into 11 political municipalities. The main island is ringed by 25 smaller widely scattered coral atolls, which lie outside the barrier reef. Pohnpei's population lives mostly on the main island and is engaged in subsistence agriculture and a variety of cottage agricultural and handicraft industries.<sup>52</sup>

The major City of Pohnpei is Kolonia. The shoreline of Pohnpei is primarily vegetated with mangroves providing for limited beach access. The Island is ringed by one main paved road with small primitive road spurs. Pohnpei is very lush and heavily vegetated. Photo 4 shows the terrain of Pohnpei.<sup>53</sup> Throughout the island, homes are mix of more western style single family homes, and clusters of family sleeping and cooking shelters made of corrugated metal. Commercial buildings tend to be standalone buildings of concrete structures with cement block infill and plaster finish.<sup>54</sup>

Pohnpeian and Chuukese society place a heavy emphasis on clan and family structures, while the importance of the clan on islands like Kosrae has largely diminished over time.<sup>55</sup>



Photo 4: View of Pohnpei

## *Kosrae*

Kosrae is the eastern-most island in FSM, located approximately 600 km southeast of Pohnpei. Kosrae is an island surrounded by a reef. Kosrae is circular in shape, measuring only 16 km across at its widest point. The second largest island in FSM, it is the only state without outer islands. Kosrae's natural resources are the unspoiled tropical island and marine resources surrounding the island. The single island that makes up the state of Kosrae is a dense jungle mountainous island with a lush green interior and several white coral beaches around the rim. The interior of the island is characterized by high, steep, rugged mountains rising to 629 meters at Mt Finkol, and covered with dense tropical rainforests. Mountains account for 70% of the total land area, so virtually all of the population lives in five coastal villages. Several sandy beaches break through the mangrove shoreline to provide easy access to the narrow surrounding lagoon.<sup>56</sup> (Photo 5).<sup>57</sup> The reef flats that surround Kosrae are considered to be among the most pristine remaining in the world. A single partially paved road on the east side of the island links Utwe to Tafunsak and other coastal villages and must be accessed by boat. Most government offices, the hospital, tourist office, post office, high school, and FSM Telecom Corporation office are located at Tofol, Kosrae's administrative center, about 4 km from Lelu.<sup>58</sup>



Photo 5: Kosrae, Micronesia

## Language

English is the official and common language of FSM, and is used in government and in commerce. There are eight major indigenous languages spoken. These are Yapese, Ulithian, Woleaian, Chuukese, Pohnpeian, Kosraean, Nukuoro, and Kapingamarangi.<sup>59</sup>

## Religion

FSM has two main religions with 50 percent practicing Roman Catholicism, and 47 practicing the Protestant faith. The remaining 3% belong to a number of other denominations and religions, including Baptist, Seventh-day Adventist, Jehovah's Witnesses, the Salvation Army, Assemblies of God, and the Mormon and Baha'i faiths. There is also a small group of Buddhists on Pohnpei. Churches play a significant role in civil society.<sup>60</sup>

## Vulnerable Groups

### *Women*

Women's rights both in law and in society in Micronesia have made good advances, though societal discrimination and total protection under the law has not yet been achieved. Sexual assault, including rape, is criminalized, though there are no laws pertaining to spousal rape, domestic abuse, or sexual harassment. Punishments for sexual assault are limited, especially if no serious injury is caused to the victim. Sexual assault crimes are significantly underreported; however, to combat this, the government has implemented several programs to train police forces and women's groups in recognizing the signs of sexual assault.<sup>61</sup> Despite the ratification and implementation of important laws and international treaties on the protection of women, studies have shown that domestic and sexual violence against women is increasing.<sup>62</sup> Women are also targets for forced labor and sex trafficking; they are approached with promises of well-paying jobs in the U.S., and then forced into prostitution or domestic labor upon arrival. Asian fishing boats are a common method of smuggling victims of human trafficking out of the country.<sup>63</sup> Women who are the head of the household are at a greater risk as they are more likely to have experienced and adverse shock through death, disability or household break-up. Women are more vulnerable because they tend to lack direct access to economic and social resources, with male members more commonly controlling land and political voice.<sup>64</sup>

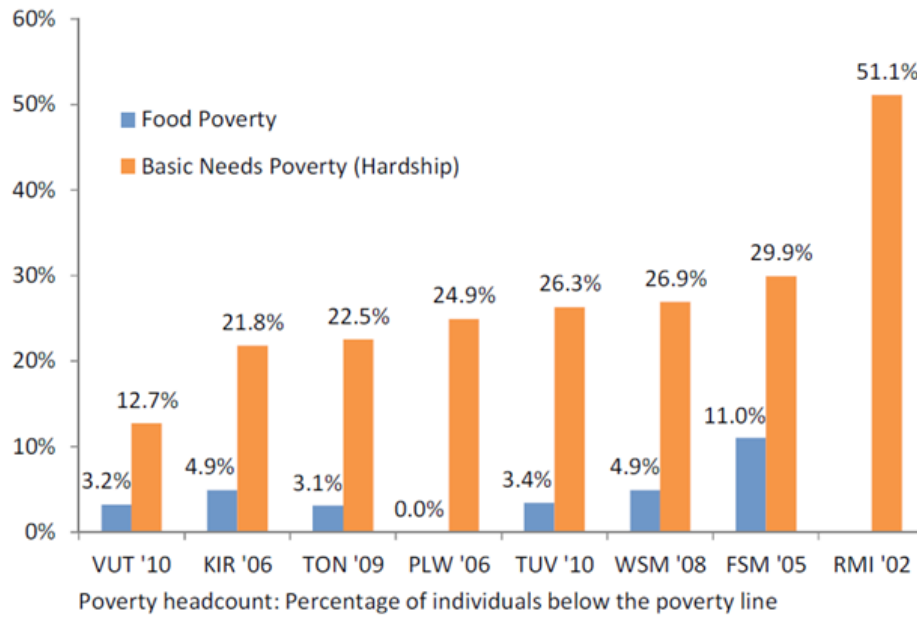


Table Note: PPP-Purchasing Power Parity (The definition refers to the international poverty line established by the World Bank and used to track incidence of extreme poverty.

Figure 3: Nationally Defined Hardship

### Children

Children are often vulnerable in FSM. School attendance is mandatory between the ages of 6 and 14, or when the child completes the eighth grade; however, there is a significant shortage of qualified teachers, which contributes to children being unable to attend school. Though child abuse is illegal, the right to “parental discipline” is allowed. The crime rate for child abuse is very low, as most cases go unreported due to social stigma. Though the sexual abuse and exploitation of children is illegal, this is also underreported and stigmatized, especially within the family. Laws against the use of child labor do not exist. Children are also targets for forced human trafficking.<sup>65</sup>

### The Poor

Pacific Island Countries are vulnerable to natural disasters and economic shocks and this translates into increased vulnerability for conditions of poverty. This also affects the poorest and most vulnerable populations harder, and can perpetuate cycles of poverty. While these shocks impact whole societies, the poor are generally disproportionately affected because they lack adequate financial means to deal with shocks, and tend to live in higher risk areas. Poorer groups are affected by disasters and climate shocks repeatedly, such as being exposed to frequent storms, floods, or droughts;

these groups have reduced means of rebuilding their livelihoods and investing in human capital. As a result, they become trapped in a cycle of poverty. In addition, poverty perpetuates disaster risk vulnerabilities due to potential linkages between poverty and the over-utilization of resources.<sup>66</sup>

The people of Micronesia are surrounded by bountiful lands and seas that have consistently provided for their basic needs. A culture of sharing and caring for others has protected certain groups such as the elderly and disabled to live comfortably, and contributes to the prevention of extreme poverty. However, many people on the islands are no longer satisfied with

island subsistence living, and the increasing needs for better infrastructure, healthcare, and employment have changed the perception of poverty in FSM. Additionally, increased populations and climate change has stressed the natural environment and it is no longer able to support the population as it once did.<sup>67</sup> Much of the population also faces vulnerability to absolute poverty, lack of food, extreme weather and natural disasters.<sup>68</sup>

Poor households are frequently impacted by natural disasters such as droughts, cyclones and earthquakes.<sup>69</sup> In the Pacific Island Nations, many poor households live in small communities on remote outer islands far from economic centers. Poor households rely on garden farming and fishing for their livelihoods, but many islands have inadequate soils where few crops grow. These communities lack basic resources, which include electricity, adequate water supply and decent roads. Education and health facilities exist but are hard to access, are poor quality, and may not be used because of associated expenses.<sup>70</sup> Figure 3 indicates that FSM has rates of 11% Food Poverty and 29.9% Basic Needs Poverty (Hardship). Many Pacific Islanders consider poverty in the Pacific to be very different from poverty in other regions. They view poverty as “hardship”. There are two types of poverty measures reported nationally and available for

most small Pacific Island Countries. The term hardship relates specifically to national poverty measures. Incidence of “hardship” refers to the part of the population whose expenses are below a threshold that includes allowance for minimum food and non-food needs. In all of the Pacific Island Countries except Palau, food accounts for more than half of the spending of the poor.<sup>71</sup>

The majority of people in the Pacific Island Nations have sufficient food and housing to survive and, as a result, starvation, homelessness and begging are almost non-existent. This can be attributed to wide access to food subsistence agriculture and fishing, along with the redistributive nature of traditional social networks that explicitly exist to ensure these basics are provided to all.<sup>72</sup>

Figure 4 indicates FSM as above the International Poverty Line of extreme poverty (\$1.90 a day in 2011) and poverty (\$3.1 a day in 2011). The exchange rates used are based on the International Comparison Project 2011 round of data collection, which includes all Pacific Island Countries. Household surveys used to calculate poverty and income estimates are only available infrequently in Pacific Island Countries and as a result, most of the poverty data is dated. While more recent data is not available, there are related trends that indicate poverty outcomes are unlikely to have improved. There is also indication that it may have deteriorated. This is due to several major natural disasters that have impacted these countries since this data was released, and the impact of the global economic crisis and food and fuel price rises that have affected the region.<sup>73</sup>

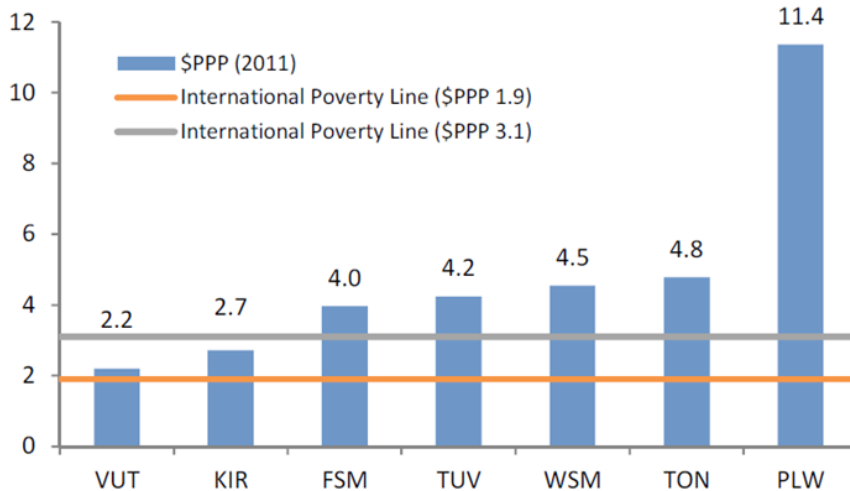


Figure 4: Pacific Island Countries Measures for Poverty Incidence Against National Lines

### Disabled Population

People with disabilities are a vulnerable part of the population when it comes to responding to and recovering from natural disasters. One out of every six people in the Pacific Islands has a disability. Disabilities often prevent contribution to the group. People with disabilities are often not integrated into the community, which puts them at greater risk of poverty.<sup>74</sup>

### Immigration/Emigration

FSM has high per capita net emigration (moving out of the country) rates. Over 50,000 citizens from FSM, Northern Mariana Islands, Palau and the RMI live abroad, representing about 20 percent of the current combined resident populations of these islands. Approximately two percent of the populations of FSM and RMI were emigrating each year in search of education, employment opportunities, or for health purposes.<sup>75</sup>

International Organization for Migration (IOM) Micronesia promotes international cooperation on migration issues, to assist in the search for practical solutions to migration problems and to provide humanitarian assistance to migrants and the wider community. IOM Micronesia has established Migrant Resource Centers in Pohnpei, and Chuuk.<sup>76</sup> A migration survey conducted in 2012 indicated that 49,840 Micronesian nationals currently reside in the U.S. and its territories, which is almost a third of the total Micronesian population. Apart from the declining population, high emigration has been contributed to adverse impacts on the countries of origin and destination, including poor integration of Micronesian nationals into U.S. culture and lifestyle, increased risk of human

trafficking, poorly managed systems of deportation, and concerns over health screening for communicable diseases.<sup>77</sup>

FSM has many irregular arrivals. Since November 2015, IOM Micronesia has provided humanitarian assistance and helped to facilitate the repatriations for Vietnamese, Papua New Guineans, and Kiribati with support from generous donors including Australia. IOM assisted with diplomatic and intergovernmental negotiations, civil society

engagement, departure requirements and subsistence items while in FSM.<sup>78</sup>

## Economics

As an associated state of the U.S., the economy of FSM is highly dependent on the funds provided to the Micronesian government. Through the Compact agreement between the U.S. and FSM, the American government provides grants and aid for program development.<sup>79</sup> The Compact provides FSM with critical economic development aid in exchange for the exclusive use of its land, airspace, and territorial waters by the U.S. for military purposes. The goal of this aid, which has been substantial, nearly \$100 million annually since 1986, was to facilitate the island nation's efforts to establish a stable democratic government and move towards greater economic independence.<sup>80</sup> Most of the funding provided goes towards direct assistance, and a variety of federal grants and services. This is focused in six different sectors: education, health, infrastructure, public sector capacity building, private sector development, and the environment. Another portion of aid is delegated towards a joint Trust Fund. The aim of the Compact and financial assistance is for Micronesia to achieve economic self-sufficiency once the Compact ends in 2023. U.S. foreign assistance also goes towards climate resilience through disaster management.<sup>81</sup>

FSM receives three to four times more official development assistance than any other Pacific Island. Other sources of income besides the U.S. have included aid from Japan, Australia, New Zealand, and the People's Republic of China. Fishing is a major industry. Exports of marine products, mainly re-exports of fish to Japan, constitute approximately 85% of export revenue. The industry is also regarded as having the most development potential and has been boosted by the construction of cold storage facilities and processing plants. Development of the domestic fishing industry, which is increasingly providing a revenue source, is part of FSM's long term strategy.<sup>82</sup>

The internal economy of FSM mainly consists of subsistence farming and fishing. This sector employs over half of the adult population. Subsistence farming has always been one of the largest aspects of the FSM economy, though the introduction of foreign interference and aid since the 1960's has made the people of FSM dependent on Western standards of life, and the

continual maintenance of this lifestyle. This will become one of the main challenges regarding self-sufficiency. The economy of FSM will need to be able to sustain the Westernized lifestyle it now has in order to provide for its citizens, as a return to "island living" is no longer feasible. Although the private sector of FSM has grown significantly since the start of the Compact agreement, a significant amount of development is essential to achieve self-sufficiency.<sup>83</sup>

There is a growing reliance on imported food. Food shortages have occurred previously, after crops were destroyed by tropical storms. Many farms on Lekinioch in Chuuk were destroyed in March 2007 as advancing seawater caused by unusually high tides wiped out fields of taro, the state's main food supply. Over-fishing is a problem. FSM is one of the Parties to the Nauru Agreement (PNA) on purse seine fishing in the Pacific and is a signatory to the South Pacific Tuna Treaty. In November 2010, the PNA agreed to implement a 30 percent cut in the 2011 catch. The cut serves to protect tuna stocks and drive up the return to the PNA from the sale of licensed fishing days. In March 2012, members of the PNA agreed to increase the minimum fee for fishing in their waters from US\$5,500 per day to US\$6,500 per day.<sup>84</sup>

The remoteness of the Pacific Island Countries creates high trade cost because of the increased proximity from major markets. In addition, small import and export volumes, location away from major shipping routes, and lack of competition among the few international shipping lines creates problematic conditions. These conditions create challenges to integrate into global value chains.<sup>85</sup>

FSM's economy has declined over the last decade and real Gross Domestic Product (GDP) growth has been poor. This has resulted in declining living standards and contributed to net outward migration. The nation is importing more than they are exporting. The economy is heavily reliant on overseas aid.<sup>86</sup>

The March 2012 Joint Economic Management Committee resolution that no further amended Compact infrastructure grants will be made until the Infrastructure Development Plan FY2016-FY2025 is updated has led to a decline in construction activity of 26 percent in Fiscal Year (FY)2013 followed by 41 percent in FY2014. Along with a 15 percent decline in domestic fisheries in 2013 this has contributed to the worst period of economic performance since the start of the amended Compact in FY2004 with sharp

contractions in GDP.<sup>87</sup>

At the end of FY 2015, there was \$111.3 million in unallocated amended Compact infrastructure funds. Obtaining the release of these funds is critical to restoring construction activity and getting GDP out of negative growth. Infrastructure development will contribute to significant improvement in GDP with the availability of amended Compact arrears and annual appropriations over the next four years.<sup>88</sup>

## Environment

Environmental considerations influence disaster management in many ways. This section outlines some of the key environmental factors that contribute to Micronesia's disaster hazards and affect potential response operations.

## Geography

Three island groupings, Pohnpei, Chuuk, and Yap, together with the single island of Kosrae, make up the FSM. In all there are 607 islands in the Caroline Island archipelago, which stretches 2,500 km through the central Pacific. Only 65 of these islands are inhabited. The total land area is only 704 sq. km. Pohnpei, a volcanic, mountainous island, constitutes nearly one half of the land area, with 345 sq. km. The other island states are Chuuk (129 sq. km); Kosrae (109 sq. km); and Yap (121 sq. km). The total length of the coastline is 6,112 km. Most islands are surrounded by coral reefs and many surround internal lagoons. The geography of the island states varies greatly; from low-lying atolls rising just a few meters above sea level, to peaks of several hundred meters in Pohnpei and Kosrae. Each of the four states center around one or more high islands, and all but Kosrae include numerous atolls. The high islands include extensive areas of tidal flats and mangrove swamps.<sup>89</sup>

### *Natural Resources*

The ocean is FSM's most valuable resource. FSM's exclusive economic zone covers 2.6 million sq. km of ocean which contain the world's most productive tuna fishing grounds. The tuna resources include both surface schooling and deepwater species. The approximate market value per year of tuna harvested within the nation is about \$200 million. Pohnpei and Kosrae have begun construction and installation of cold storage and tuna processing plants, involving

several million dollars, which will provide added facilities for vessels, and storage capacity for transshipment or processing at future dates. The state of Yap, on the other hand, is the major shareholder in the Yap Fishing Corporation, and plans to invest some \$20 million in its fishing fleet.<sup>90</sup>

### *Land Use*

On the coral atolls, the land is generally infertile, and capable of growing little more than coconuts. Land on volcanic islands is more fertile, but generally steep and inaccessible. Farming is mainly of a subsistence nature, and declining as reliance on imported food increases. Principal crops are betel nuts, kava, coconuts, bananas, black pepper leaves, cassavas, and sweet potatoes. Arable land makes up 3 percent of total land, while land under permanent crops accounts for about 25 percent of the total. Both Kosrae and Pohnpei have extensive upland forestry resources, but much of it is too inaccessible for commercial exploitation.<sup>91</sup>

The constitution limits the ownership of land to FSM citizens, and land use rights are passed down from one generation to the next within the extended family. Even domestic corporations, which have non-citizen shareholders, may not own land.<sup>92</sup> Non-citizen individuals and corporations may lease either public or private lands. Subsurface property rights are synonymous with surface rights. There are no publicly owned subsurface mineral or water rights in any of the states. Land in FSM is very important because of its short supply and because of its traditional importance. Leasing of private lands in particular can be time-consuming, due to fractional ownership and uncertain boundaries and titles. Many parcels of land are held by families, which may have different rules, all of whom assert interests in the land.<sup>93</sup>

Traditional farm families are increasingly in need of cash. For many, agriculture is the only income source. For others, opportunities in agriculture may be too limited, risky or difficult, and migrate out of FSM. There are opportunities to work with village communities, and to introduce simple but improved technologies, business understanding, and market awareness. However, small traditional subsistence and near subsistence farmers are a difficult extension target, requiring very different strategies from commercial farmers.<sup>94</sup>

## *Environmental Degradation*

The environment of FSM has been steadily degraded as a result of the following:<sup>95</sup>

- Population growth and migration;
- Over-harvest of fish and wildlife resources;
- Human activities such as land clearing, logging, dredging, mining, and agriculture;
- Uncontrolled disposal of wastes, burning, reclamation, and coastal/near-shore degradation; and
- Natural hazards such as those associated with extreme weather events, climate change, high tides and sea-level rise.

These things have negatively influenced the natural environment, health and economy of FSM. Climate change is the major environmental concern, as there are fears that global warming could produce a rise in sea levels. Global warming could also lead to the destruction of significant areas of mangrove wetlands, which are important for fish stocks, filtering coastal pollution, and providing timber and construction materials for local communities. Mangroves also protect islands from flooding during storms.

In addition, there is a continuing risk of oil-leakage from the large number of World War II shipwrecks in the area. Wrecks are slowly corroding on the seabed around FSM. Approximately 32 million liters of oil remains in Chuuk Lagoon, and dynamite fishing, storms, corrosion, and human activity are increasing the chance of oil spills. Spills threaten FSM's economy, as diving and fishing are some of the main sources of revenue.<sup>96</sup>

## **Maritime Security**

FSM's primary security issues are enforcing its maritime territorial claims against illegal fishing activities. It is likely that there are trans-Pacific drug trafficking routes passing through FSM's maritime territory, although the impact on the states themselves is extremely limited. There are no external threats to FSM. Under the Compact, the U.S. is responsible for the state's defense. This situation will not change in the near future, with the current agreement in place until 2023 and an informal relationship likely to persist beyond that date.<sup>97</sup>

The U.S. and FSM have a maritime boundary treaty agreement to delimit the exclusive economic zones between the two countries. The agreement provides definitive legal status to the boundaries between the overlapping exclusive economic zones of FSM and the U.S.

Territory of Guam in the North Pacific Ocean. This agreement underscores the importance of clearly establishing national areas of jurisdiction and limits under the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which provides the foundation for improved governance, protection, conservation and management of national ocean resources. This agreement involved collaboration between the Department of Foreign Affairs, Department of Justice and National Oceanic Resources Management Authority (NORMA) office, and the Office of the Legal Advisor and the Office of Oceans and Polar Affairs under the U.S. Department of State.<sup>98</sup>

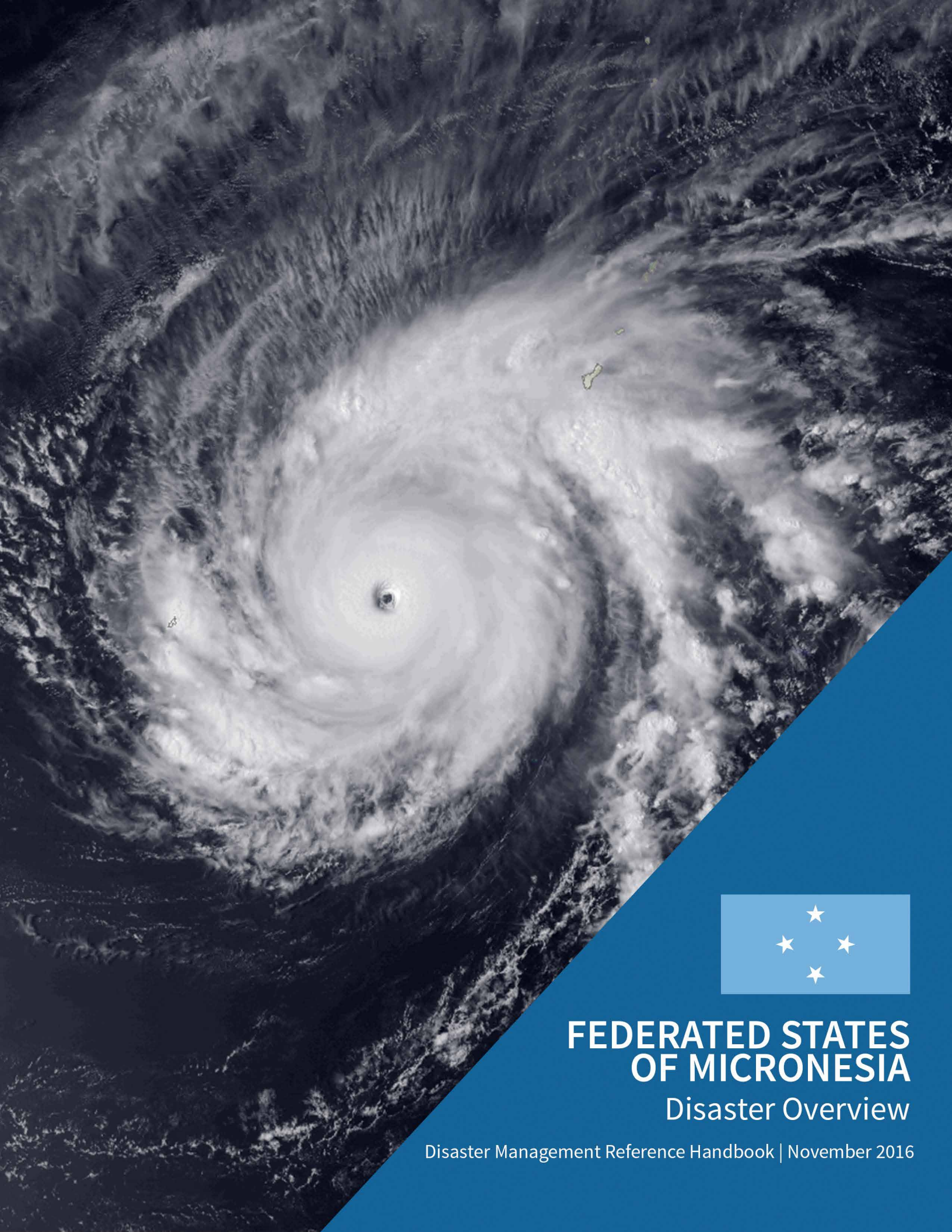
The U.S. government works with FSM regarding aviation security and inter-island flights have stringent on-board security checks. The Departments of Agriculture and Health monitor incoming cargo (air and sea) for items that may constitute transboundary risks.<sup>99</sup>

## **Climate**

FSM has a tropical oceanic climate. The cyclone season stretches from July to December. Extreme storms occur regularly, with tropical typhoons constituting an annual threat, particularly to low-lying atolls. Rainfall is usually plentiful, particularly in the eastern islands. FSM is also faced with drought conditions and at these times, groundwater supplies have dwindled to emergency proportions.<sup>100</sup>

FSM's climate is associated with El Nino and La Nina cycles, for typhoon activity and drought risk.<sup>101</sup> The monthly mean rainfall cycle has both wet (May- September) and dry (November – April) seasons. During the dry season El Nino typically peaks with drier climatic conditions and little to no rain whereas La Nina brings in above average monthly rainfall. Hazards such as drought is more frequent during El Nino cycles and tropical storms which bring high winds, high surf, and flooding occur during La Nina cycles.<sup>102</sup>





# FEDERATED STATES OF MICRONESIA

## Disaster Overview

Disaster Management Reference Handbook | November 2016

# Disaster Overview

The small island developing states of FSM, located in the North Pacific region, are directly facing the challenges associated with climate variability and change. The region has also been affected in the past by a number of hazards, including typhoons, storm surge, droughts, flooding, as well as, secondary impacts, such as landslides. In addition, fires, water shortages, and food shortages have also occurred during severe dry events.<sup>103</sup> Natural disasters, primarily cyclones, present an ongoing threat to FSM.<sup>104</sup> With more than a dozen presidential disaster declarations since 1986, FSM and the four states that constitute FSM recognizes the consequences

of disasters and the need to reduce the impacts of natural and man-made hazards.<sup>105</sup>

Yap and Chuuk are more exposed to the impacts of typhoons than Pohnpei and Kosrae. A heavy downpour associated with tropical storm Chata'an in 2002 triggered more than 250 landslides across the eastern volcanic islands of Chuuk State, with 43 fatalities and widespread damage. All four States are susceptible to drought and tidal surge.<sup>106</sup>

## Hazards

Figure 5 shows the Index for Risk Management (INFORM) for FSM in reference to hazards score. INFORM is a global, open-source risk assessment for humanitarian crises and disasters. INFORM is

### RISK PROFILE

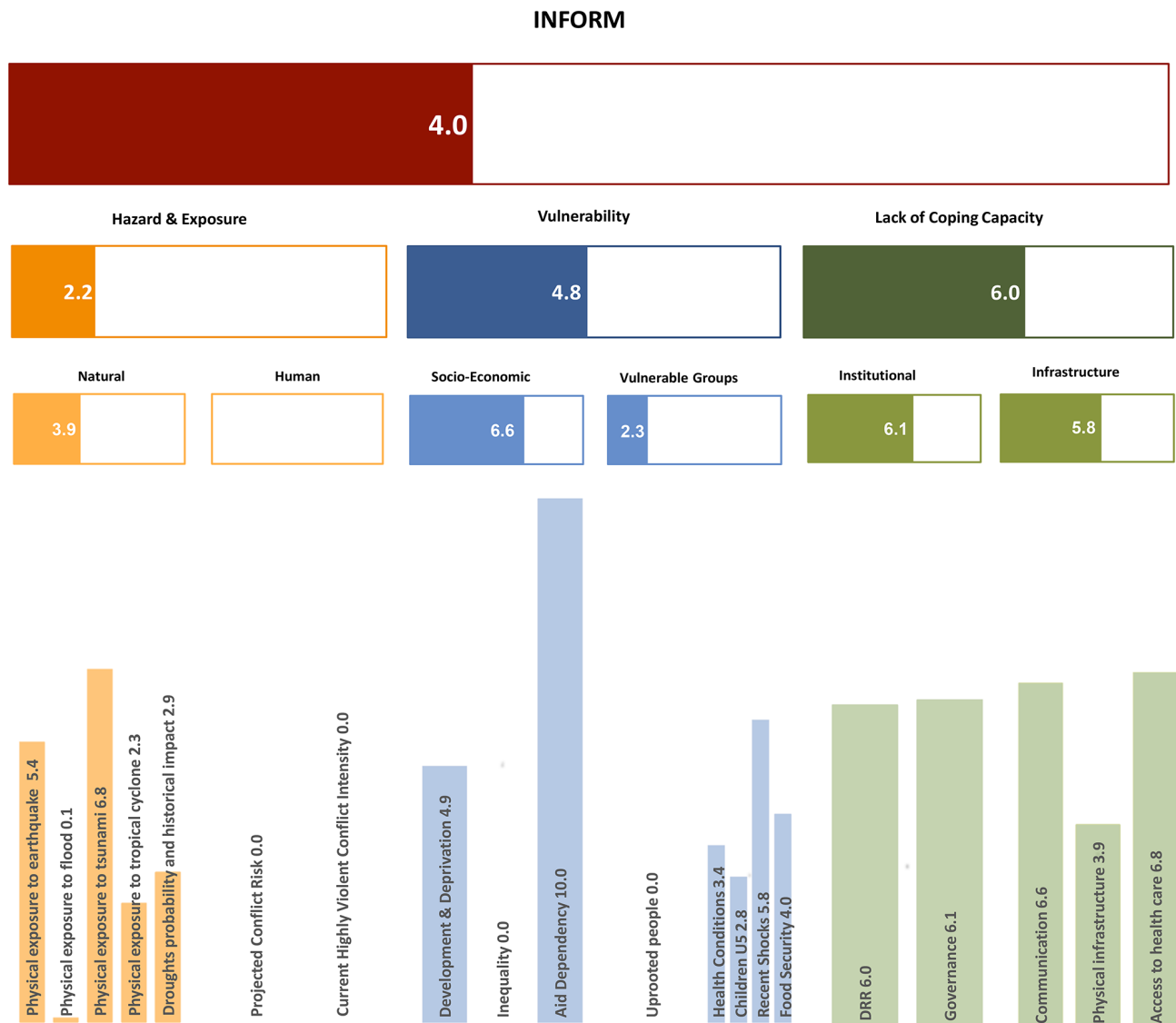


Figure 5: Index for Risk Management for FSM

a collaboration of partners led by the Inter-Agency Standing Committee Task Team for Preparedness and Resilience and the European Commission. The INFORM model is based on risk concepts published in scientific literature and uses three dimensions of risk: hazards & exposure, vulnerability, and lack of coping capacity dimensions. The index rates each country with an overall risk score of 1-10 (1 being the lowest and 10 being the highest).<sup>107</sup>

As the INFORM graph shows, FSM has a 2016 Hazard and Exposure Risk of 2.2/10, which includes a physical exposure risk to tsunamis, earthquakes, tropical cyclones, and droughts. FSM has a Vulnerability Score of 4.8/10 which includes an high Aid Dependency score of 10/10 and well as a Food Security Score of 4.0/10. People living in FSM are highly dependent on growing crops as a major source of food, which can cause a major problem when food crops in low-lying areas are destroyed during times of flooding, drought, and/or high winds. Often times, high tides damage and destroy soil and

food resources, causing FSM to become even more dependent on U.S. and foreign aid. In addition, FSM has a high Lack of Coping Capacity Score of 6.0/10. The likelihood that Micronesia will need international assistance in the near future is high if they are hit with a cyclone, tsunami, or drought. Food security is a growing concern in FSM, with coastal erosion, and other environmental degradation.<sup>108</sup>

## Recent History of Natural Disasters

### Pacific Drought 2015-2016

Many parts of FSM are entering a period of moderate to severe drought as El Niño impacts continue to be felt. Lower than normal rainfall during the coming months will cause drought to develop in parts of Chuuk state. Drought is already affecting Yap State. Below normal rainfall is expected across the region until later in the year.<sup>109</sup>

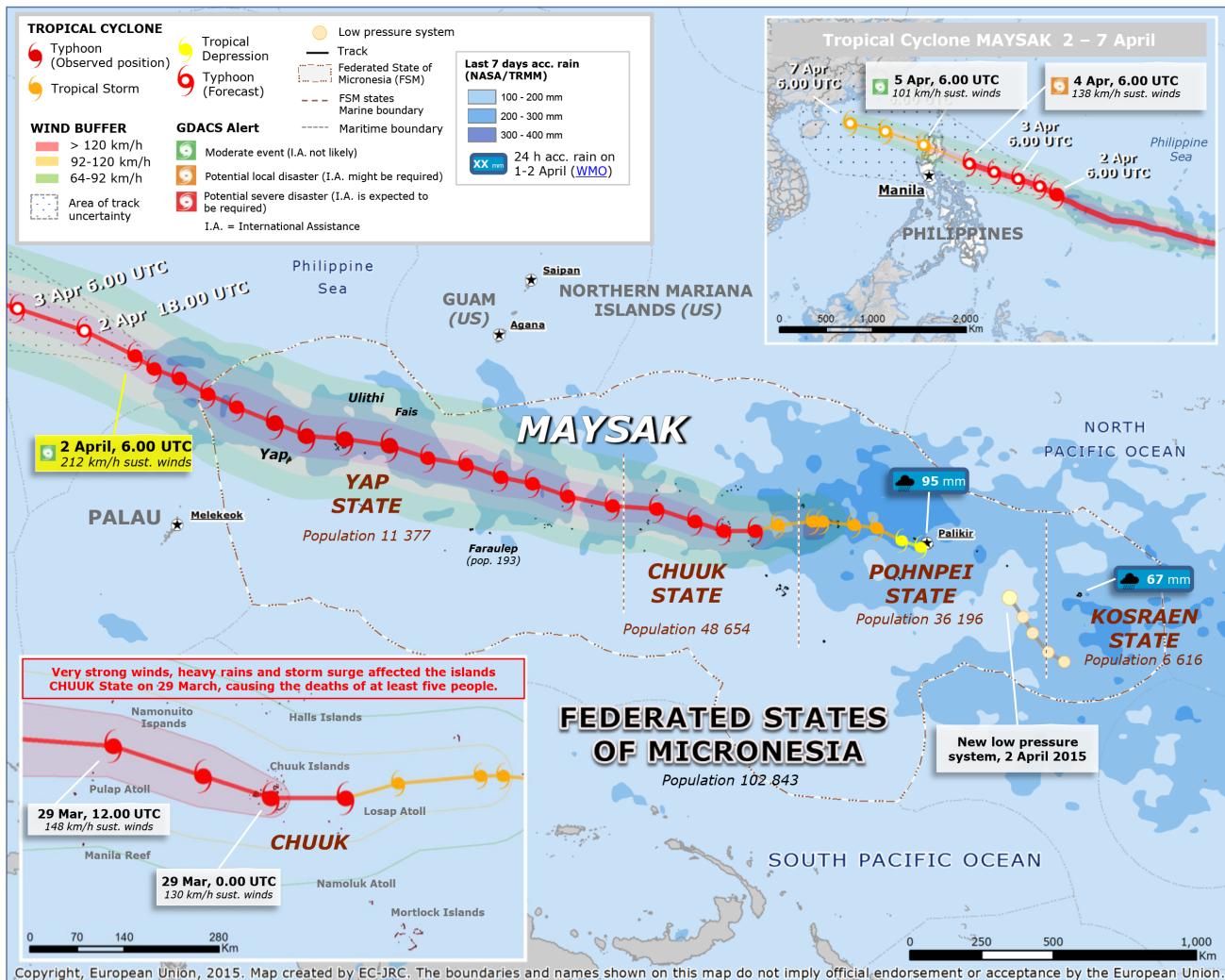


Figure 6: Emergency Response of Tropical Cyclone Maysak

## *Typhoon Maysak-March 2015*

Typhoon Maysak passed through Chuuk and Yap States between March 29 and April 1, 2015.<sup>110</sup> The typhoon damaged houses, crops, and public infrastructure, causing millions of dollars in damage. Nearly 30,000 were affected, representing more than 50 percent of Chuuk's population and 10 percent of Yap's population.<sup>111</sup> There were four confirmed fatalities, and ten persons treated for storm-related injuries.<sup>112</sup> Figure 6 shows an ECHO Daily map from the Emergency Response Coordination Center showing (in red) very strong winds, heavy rains and storm surge.<sup>113</sup> Typhoon Maysak reached Category 5 level, making it the strongest North Pacific storm on record for the time of year. In the immediate aftermath, both local and international Disaster Preparedness for Effective Response (PREPARE) staff activated response activities and, in coordination with State and FSM national authorities, IOM Micronesia initiated life-saving assistance. In the days following the event (with the support of USAID's Office of Foreign Disaster Assistance, Micronesia Registration Advisors and the Australian Government) IOM provide food, clean water, shelter and hygiene materials to affected populations. IOM is USAID's implementing partner for the Typhoon Maysak Reconstruction Program, helping communities rebuild and restore critical public infrastructure and utilities.<sup>114</sup>

## *Typhoon Haiyan-November 2013*

Tropical Storm Haiyan (called Yolanda in the Philippines) initially formed in Micronesia, then gained strength, continued west and made its first landfall on November 8, 2013 in Guiuan municipality of the Philippines' Eastern Samar province.<sup>115</sup> Super Typhoon Haiyan affected Palau and parts of Micronesia early, packing winds of up to 250 km per hour.<sup>116</sup>

## *Influenza A (H1N1) Pandemic-April 2009*

Beginning in April 2009, pandemic influenza A (H1N1) 2009 virus affected all parts of the world including FSM, causing the first influenza pandemic since 1968. Following the observation that one or two epidemic periods had occurred in most countries and in most World Health Organization (WHO) Regions, WHO declared on August 10, 2010 that the world was moving into the post-pandemic period.<sup>117</sup>

## *December 2008-High Tides and Flooding*

In December 2008, FSM President Mori declared an emergency following tidal surges that flooded business properties, homes and coastlines, resulting in the need to evacuate the affected areas. The storm washed 200 meters of shoreline with sea and salt water, causing coastal erosion and soil damage, and 29 islands were completely inundated.<sup>118, 119</sup> These high tides damaged soil and food resources.<sup>120</sup>

## *Typhoon Sudal-April 2004*

On April 9, 2004, Typhoon Sudal passed Yap State of FSM, causing extensive damage to public and private utilities and food crops. The outlying islands of Ulithi and Fais were also struck by the typhoon. Approximately 1,000 people were estimated to be homeless, some 500 of whom were in public shelters, while others were staying with relatives.<sup>121</sup> One person died in the typhoon and the homes of more than 1,500 people were badly damaged.<sup>122</sup> A State of Emergency was declared and the declarations were issued by both the Governments of the State of Yap and FSM. The U.S. (through FEMA), ordered federal disaster aid.<sup>123</sup>

## *Typhoon Lupit-November 2003*

From November 21-25, 2003, Typhoon/tropical storm Lupit passed through Chuuk State and Yap State of FSM, increasing its strength. The typhoon began to impact the eastern part of Yap State on November 23 and continued to intensify as it travelled through the neighboring islands. It was reported that its sustained winds were estimated at 194 km/h and its gusts at 240 km/h at one stage. Potable water supplies were contaminated by the storm surge. The contamination of water supplies has resulted in reported outbreaks of communicable diseases in some affected communities. Food crops in all low-lying areas in north-eastern and southern outlying islands were almost totally destroyed which seriously affected the life of the islands people who depended on crops as a major source of food. Public facilities and properties, roads and seawalls were all impacted and sustained damage. Approximately 200 homes were destroyed.<sup>124</sup>

## *Typhoon/Tropical Storm Chata'an-July 2002*

A powerful typhoon, Chata'an, with damaging winds of 110 km/hour (70 mph) hit Chuuk. The continuous torrential rains caused landslides, brought down houses, cut the power lines and destroyed the drainage systems. At least 48

people were reported dead, 73 injured; 300 families were left homeless and 130 houses were completely destroyed.<sup>125</sup>

#### *Typhoon Mitag-March 2002*

Tropical Storm Mitag began to impact the eastern part of Yap State on February 28, 2002. It became a typhoon and struck Yap Main Island for a few hours on March 3rd. Maximum sustained winds were estimated at 95 knots (approximately 175 km/h), with gusts up to 115 knots (approximately 212 km/h). Most of the islands neighboring Yap Main Island were also impacted by the typhoon. The atolls of Ifalik, Woleai, and Eauripik sustained major damage. There were no deaths or serious injuries reported, but destructive winds and a tidal surge destroyed nearly all the food crops in low-lying areas in the north, northeast, and southern parts of Yap Main Island, up to 400-500 m inland. The tidal surge brought many low-lying areas, including parts of Colonia (the main town), under water for several hours. Some 150-200 people lost their homes, and approximately 130 were housed in temporary shelters. The coastline, the retaining walls and the food crops on Rumung Island, near Maap, in the north of Yap Main Island, were also extensively damaged by the storm surge, which went as far as 1,200 m inland. Power in Colonia was cut for several hours when the typhoon struck but was restored soon after winds subsided. However, downed power lines meant that the north and south of the main island still did not have power three days later. Damages were caused to public facilities, property and roads. Homes and private property including boats, vehicles, and merchandise in stores were destroyed.<sup>126</sup>

#### *Drought-March 1998*

Long periods of drought in FSM in 1998 made it difficult for several outlying atolls to maintain an adequate supply of potable water. The FSM Department of Foreign Affairs reported that, due to the prolonged drought, many areas were either without water or were on water rationing systems. Rivers had dried up and wells were dangerously low with increasing levels of salinity. Drought can affect a public health crisis due to the increase in bacteria and contaminants in any remaining water supplies. Lack of water also increased substantially the risk of fire. The national services were inadequately resourced with fire-fighting equipment. The drought had depleted food supplies by causing stress on staple crops, especially taro. For unknown reasons,

there was a decrease in the fish catch, presumably linked to the variations in water temperature. Conditions were reported to be worse on the outer islands, which depend much more on rainfall and subsistence agriculture. The FSM National Government and the States of Pohnpei and Chuuk declared a state of emergency. The FSM President determined that this crisis was of such severity and magnitude that an effective response is beyond the capabilities of FSM, the affected states and local governments and that assistance was needed from outside sources. Assistance was requested from the U.S. Government and the United Nations.<sup>127</sup>

#### *Typhoon Isa-April 1997*

In April 1997, Typhoon Isa struck Pohnpei, causing numerous landslides, damage to land and infrastructure, and 19 deaths.<sup>128</sup>

#### *Tropical Storm-November 1987*

On November 21, 1987, Chuuk was devastated by tropical storm Nina with winds exceeding 80 knots. There were four confirmed deaths, one missing, three critically injured and scores of minor injuries. Hundreds were homeless and temporarily sheltered in undamaged public buildings. About 95 percent of crops were damaged or destroyed. The sewage system was clogged by debris and lack of running water posed serious health hazards. Estimated total damages valued at approximately US\$6 million.<sup>129</sup>

## **Climate Change**

The future of FSM is at high risk from the adverse impacts of climate change. Its four major island groups total 607 islands, 65 of which are populated. While the four centers (Chuuk, Kosrae, Pohnpei and Yap) are volcanic with the highest point at 791 meters, outer islands are mainly low-lying atoll islands, rising no more than a few meters above sea level. FSM's climate is tropical, with heavy, year-round rainfall, especially in the eastern islands. Its islands are located on the southern edge of the typhoon belt, with typhoon season between June and December.<sup>130</sup> Masao Nakayama, Permanent Representative of the FSM, who was born on the tiny atoll of Onoun in the state of Chuuk, FSM said the threat of climate change not only affects their survival, but also their culture.<sup>131</sup>

The islands of FSM support three types of reef formations: fringing reefs, barrier reefs and atolls. In all states, islanders have a strong dependence on coral reefs and marine resources,

both economically and culturally.<sup>132</sup> Coral bleaching in FSM has already been observed in Yap atolls in 2007.<sup>133</sup> In addition, storms can cause reef damage, such as Typhoon Sudal in 2004, which hit Yap, resulting in structural damage to its reefs.<sup>134</sup> Coral reefs form natural barriers protecting most islands in FSM. Without healthy coral reefs, low-lying atolls will have no protection from the Pacific Ocean. Chuuk Lagoon, one of the largest in the world, is densely populated with the vast majority of people living along the immediate coastline. Warming temperatures and ocean acidification are expected by international researchers to have an effect on coral reefs in FSM, threatening the population.<sup>135</sup>

Food security is a growing concern in FSM, with increasing land pressures that strain agricultural efforts and food supply, coastal erosion, and increased incidence of pests and disease in major crops such as bananas and taro. States such as Chuuk are particularly vulnerable, because it contains 50 percent of FSM's population yet only 12 percent of its arable soil.<sup>136</sup> On atolls, coastal erosion threatens groundwater supplies and agroforestry production. Mangrove and coastal forests have been lost, exposing the shoreline to environmental damage including erosion and coastal sedimentation. Dredging and use of coastal sand and gravel for construction has caused coastal erosion, and beach loss.<sup>137</sup>

In response to environmental challenges, IOM Micronesia has supported vulnerable communities to develop Early Action Plans benefiting some 27,112 community members.<sup>138</sup>

On June 3, 2009, the United Nations General Assembly unanimously adopted Resolution A/RES/63/281 inviting the United Nations to intensify their efforts in considering and addressing climate change, especially its security implications.<sup>139</sup> FSM supports this.

According to the FSM Strategic Development Plan 2004-2023, current government environmental agencies, partnerships, and policies are failing to address these environmental challenges. Focusing on the nine strategic areas may bring about change and improve the environment. These include:<sup>140</sup>

- Mainstream environmental considerations, including climate change, in national policy and planning as well as in all economic development activities;
- Improve and enhance the human environment (improve waste management and pollution control);

- Reduce energy use and convert to renewable energy sources/minimize emission of greenhouse gases;
- Make FSM's genetic resources accessible for utilization and ensure benefits derived are equitably shared amongst stakeholders;
- Manage and protect natural resources/protect, conserve, and sustainably; manage a full (functional) representation of FSM's marine, freshwater, and terrestrial ecosystems;
- Improve environmental awareness and education and increase involvement of citizenry of FSM in conserving their country's natural resources;
- Establish effective biosecurity (border control, quarantine and eradication) programs to effectively protect FSM's biodiversity from impacts of alien invasive species;
- Create sustainable financing mechanisms for environmental and sustainable resource initiatives; and
- Enhance and employ in-country technical capacity to support environmental programs.

## Infectious Disease

FSM's population is susceptible to several infectious disease threats such as Dengue, HIV, Hepatitis A, Malaria, Measles, Typhoid, Japanese B Encephalitis, Rabies, and Tuberculosis. More information on these communicable diseases can be found in the Health section as well as the Travel Health Information Section (Appendix) of this document.<sup>141</sup>

Human leptospirosis is an emerging infectious disease of global significance, and is endemic to several countries in the Pacific. A recent study demonstrated a high burden of leptospirosis in Pohnpei. Further work is warranted to identify additional risk factors to control leptospirosis in Pohnpei and the Pacific.<sup>142</sup>

## Endemic Conditions

In the long term, Micronesia is potentially threatened by global climate change. Rising sea levels and the increasing frequency and severity of Pacific storms threaten to flood the coral atolls, rendering agricultural land useable and damaging the state's already limited infrastructure. More information on climate change can be found earlier in the document.<sup>143</sup>



# FEDERATED STATES OF MICRONESIA

## Organizational Structure

Disaster Management Reference Handbook | November 2016

## Organizational Structure for Disaster Management

FSM has a National Disaster Act and a National Disaster Plan but has yet to develop a National Action Plan. FSM Act is an agreement to Amend Article X of the Federal Programs and Services Agreement between the Government of the U.S. and the Government of FSM. FSM's disaster plan is a multi-state multi-hazard mitigation plan for FSM.<sup>144</sup>

The Multi-State Multi-Hazard Mitigation Plan for FSM, prepared in 2005 in compliance with FEMA regulations, is the main statutory item dealing specifically with the issue of DRR. This plan contains national and state level mitigation plans for all hazards.<sup>145</sup>

In 2009 a National Climate Change Policy was put in place, which focuses on adaptation at the national, state and community levels to reduce FSM's vulnerability to climate change adverse impacts among other things. This is to be achieved by requiring all development activities in FSM to take into account projected climatic changes in the design and implementation and to integrate climate change into other policies, strategies and (sector) action plans including disaster preparedness and mitigation. A number of sector plans are under review at present and the new agricultural policy states that the environment and climate change must be taken into consideration when formulating sector strategies.<sup>146</sup>

DRR and planning are amongst the functions that rest with the individual States, and all States have Disaster Management Plans. The issue of disaster mitigation is referred to in most of the State Disaster Management (DM) plans, with actions identified in the Multi-State Multi-Hazard Mitigation Plan. Kosrae State Law No. 10-2 (2011) takes climate change and its adaptation into consideration for future development activities.<sup>147</sup>

Capacity levels vary by state, with Yap State having the highest capacity and Kosrae the lowest. The respective priority accorded to DRM in the States corresponds roughly to their respective hazard profiles (Yap and Chuuk being more exposed to typhoons). Capacity at state level is determined largely by the existence of State Disaster Coordination Officers and the nature of their background, training and experience (Pohnpei does not have one at present). All four States have recently built new

buildings to serve as EOCs under an European Union funded regional program administered by SPC SOPAC. A new building to serve as a national EOC is currently under construction.<sup>148</sup>

The responsibility for integrating disaster and climate related risks into development planning and budgetary processes at national, sub national and local/community level rests largely on the states. Under the Constitution, the individual states hold considerable powers in running their own affairs, including budget and development planning and DRM and climate change. States have their own DRM coordinators and EOCs, and Environmental Protection Agencies. Below the state level, 74 municipalities exist, sometimes spread over multiple islands. The federal government as such fulfils a more facilitative role in the overall FSM government structure.<sup>149</sup>

Governance of DRM and climate change comprises the FSM Climate Change Country Team and the FSM National Disaster Task Force. These structures are complemented by the divisions of Emergency Management and Environment and Sustainable Development in the Office of Environment and Emergency Management (OEEM). The FSM National Disaster Task Force is made up of Secretaries of the Departments, and Directors of offices and agencies that comprise Cabinet. This committee serves as an advisory body to the President on policy matters pertaining to the dispensing of the National Government disaster assistance to the State(s) stricken by disaster. The National Disaster Committee is responsible for guiding and supporting the development and implementation of FSM's disaster management programs.<sup>150</sup> These are essentially government structures that have been established to facilitate coordination across sectors. The National Disaster Task Force consists of government representation and is chaired by OEEM. State and non-governmental representatives may be added on an ad hoc basis.<sup>151</sup>

The Governor of each state has primary responsibility for the formulation of policies and procedures to deal with natural disasters and mitigation activities in his or her state. The Governor's Disaster Committee includes all department, office and agency heads and serves as an advisory body to the governor in the formulation of policies and coordination of the disaster response efforts.<sup>152</sup>

Under the U.S. Forest Service (FS), State-Wide Assessments and Resource Strategies (SWARS) were carried out for each state in 2010. SWARS is a tool for islands to identify their highest priorities for forest resource management and seek implementation of their strategies, with on-island partners and with



assistance from the U.S. Department of Agriculture (USDA). They include a focus on cross-cutting issues such as food security, watersheds, production and sustainable harvesting and coastal stabilization.<sup>153</sup>

USAID has the lead responsibility for disaster mitigation, relief and reconstruction in FSM and RMI under the COFA. USAID's disaster assistance in these countries complements climate change measures that help the two countries prepare for the effects of natural disasters.<sup>154</sup>

A DRM "Network" exists amongst the Government of FSM and some of its main DRR partners. This is coordinated by IOM and currently consists of USAID, UN, Pohnpei State Government, US Embassy, Embassy of Japan, the Australian Department of Foreign Affairs and Trade (DFAT), USDA, Micronesia Red Cross Society, Island Research and Education Initiative (IREI), Micronesia Conservation Trust, Conservation Society of Pohnpei, Island Food Community of Pohnpei and Gear Up. However, a multi-agency structure for DRR does not exist presently in FSM.<sup>155</sup>

An important pillar of USAID's disaster mitigation, relief, and reconstruction program in FSM and RMI is a cooperative agreement between USAID and its primary relief and reconstruction partner in the two countries, the IOM, which maintains offices in Pohnpei and Yap state, FSM, and Majuro, RMI. USAID also maintains a full-time presence in FSM and RMI through a Disaster Assistance Coordinator (DAC). Located in Majuro and working as a member of the U.S. Embassy county team in FSM and RMI, the DAC serves as a liaison with host governments and coordinates U.S. Government (USG) relief activities in FSM and RMI. USAID recently established a position for Reconstruction Assistance Coordinator based in USAID/Philippines, who helps USAID fulfill the reconstruction component of its mandate as specified in the Operational Blueprint.<sup>156</sup>

DOS is the lead U.S. agency in responding to overseas disasters. Within the DOS, the USAID is responsible for coordinating international disaster assistance. Within USAID, the Office of Foreign Disaster Assistance (OFDA) is responsible for coordinating humanitarian assistance. DOD involvement in overseas humanitarian assistance and disaster relief operations must be requested and coordinated with USAID through OFDA and the relevant U.S. Embassy.

### *Resource Mobilization for the Republic of the Marshall Islands and the Federated States of Micronesia*

A specific mechanism exists in FSM and RMI in terms of resource mobilization in line

with the recently amended Compact with the U.S. and the role of USAID and FEMA. In November 2008, an amended Article X came into force. The modified agreements establish a Disaster Assistance Emergency Fund (DAEF), with an annual deposit of \$US200,000 by the Governments of RMI and FSM, to be matched by a contribution of the same amount by the U.S. Government, starting in 2005 and ending with a contribution in 2023. To request assistance from USAID, the Governments of RMI and FSM need to undertake certain actions, including:

- An official declaration by the President of RMI and FSM of a national state of emergency
- Acknowledgment that the disaster is beyond the capacity of the government to respond, including the resources available in the DAEF; and
- A request for international assistance through the UN.

If these criteria are met, USAID may provide initial assistance of \$US50,000 for immediate relief. Should the emergency require greater response, needing more resources than those available through the DAEF, the international community and USAID combined, the Presidents of RMI and FSM may request that the U.S. President declare a state of emergency. FEMA/USAID will undertake a Preliminary Damage Assessment (PDA) to determine the required assistance.

Following a Presidential disaster declaration, USAID will implement the relief and reconstruction activities in accordance with a relief and reconstruction plan to be developed by the U.S. Government in consultation with the national government. The funding will be provided by FEMA, which will remain available as a "safety net" of last resort.<sup>157</sup>

### *Assessing needs following an emergency in RMI and FSM*

If the U.S. President declares a State of Emergency for RMI or FSM, a "hybrid" FEMA/USAID/Government assessment team will carry out a PDA. Because of FEMA regulations the mobilization of such a team follows specific guidelines and the assessment report cannot be shared with other stakeholders outside of the U.S. Government. It is therefore important that other international actors work early on and closely with RMI and FSM Governments and IOM, which has presence in FSM and RMI as the

USAID implementing partner, and can act as the linkage with the wider humanitarian community so that there is no duplication of efforts.<sup>158</sup>

An example of this request for aid is in FSM's recent disaster, Typhoon Maysak in March 2015. Below is the context:

- Between March 29 and April 1, Typhoon Maysak traversed Chuuk and Yap, bringing destructive winds to several islands and reaching Yap's Ulithi Atoll and Fais Island as a super typhoon with sustained winds exceeding 160 miles per hour.<sup>159</sup>
- On March 30, Chuuk Governor Johnson Elimo declared a state of emergency, while Yap Governor Tony Ganngiyan announced a state of emergency on April 1. FSM President Emanuel Mori subsequently issued a presidential emergency declaration for both locations.<sup>160</sup>
- Immediately following the typhoon's passage, USAID/OFDA deployed staff to FSM to assess humanitarian conditions and help coordinate the USG response in collaboration with FEMA and other USG partners, GoFSM officials, and relief actors on the ground. On April 2, U.S. Ambassador Dorothea-Maria Rosen declared a disaster due to the effects of Typhoon Maysak.<sup>161</sup>
- On April 17, FSM President Emanuel Mori submitted a request for a U.S. Presidential Disaster Declaration, noting the need for additional USG assistance to bolster the GoFSM's ability to respond effectively to the humanitarian effects of Typhoon Maysak. The Presidential Disaster Declaration request followed the recent completion of a PDA, which found substantial storm damage across FSM's Chuuk and Yap states and identified critical needs for food and agricultural assistance, shelter support, and water, sanitation, and hygiene (WASH) supplies. [Note: Through its Compact of Free Association with the U.S., the GoFSM is eligible to appeal for a Presidential Disaster Declaration, for which the PDA is a prerequisite. If granted, a Presidential Disaster Declaration would make available emergency relief and reconstruction funding from the U.S. Department of Homeland Security's FEMA, the U.S. Small Business Administration, and other USG agencies.]<sup>162</sup>
- On April 28, 2015, U.S. President Barack Obama issued a Presidential Disaster Declaration after FSM was severely damaged by Typhoon Maysak, which passed through Chuuk and Yap States between March 29 and April 1, 2015. Under the terms of the Compact agreement between the U.S. and the Government of FSM, the Declaration mobilized U.S. federal funding for immediate emergency relief and reconstruction assistance. The U.S. Government Emergency Response included:<sup>163</sup>
  - As of January 2016, USAID's Office of U.S. Foreign Disaster Assistance (USAID/OFDA) airlifted relief items to FSM and provided \$2.1 million to IOM - USAID's primary implementing partner in FSM - to support Typhoon Maysak relief and recovery efforts. USAID/OFDA also provided more than \$620,000 to the UN Food and Agriculture Organization to restore agricultural production.
  - Between April 22 and May 1, 2015, IOM delivered USAID/OFDA-provided shelter and WASH supplies to benefit more than 200 storm-affected households in Chuuk and Yap states.
  - USAID/OFDA transported 20 reverse osmosis water treatment units from RMI to FSM, 10 of which were installed as of May 25, 2015.
  - With support from USAID/OFDA and other donors, IOM established 17 water distribution points and distributed water containers to 3,000 families across Chuuk. IOM also coordinated with the Chuuk Public Utility Corporation to distribute 2,000 gallons of water per day to storm-affected communities throughout the Chuuk Lagoon islands. Additionally, IOM provided more than 530 families in the Chuuk Lagoon islands with hygiene kits.
  - In Yap State, USAID/OFDA had delivered more than 44,000 pounds of locally-procured food to storm-affected communities in Ulithi Atoll as of May 1, 2015.

USAID supplements and supports the Government of FSM in all post-disaster recovery and reconstruction efforts. USAID is actively engaged with other international donor agencies in coordinating efforts throughout the disaster relief and reconstruction phases. USAID is also responsible for working closely with FSM authorities in Chuuk and Yap to repair public infrastructure damaged by the typhoon. USAID is coordinating with local authorities to assess damage to infrastructure, including utilities. USAID is coordinating

with local partners to repair or reconstruct public schools, health facilities and community centers. Assistance is also being provided for the rehabilitation of public utilities (e.g. power and telecommunications), government administration buildings, sea walls and jetties.<sup>164</sup>

## Humanitarian Response Depot

### *IOM Warehouses*

IOM maintains warehouses in three locations of prepositioned supplies for post-disaster response in both FSM and RMI, including hygiene, shelter, and water related materials. These supplies can only be released in coordination with USAID following a U.S. Presidential decree, and this happened during Typhoon Maysak. IOM is in the process of opening a warehouse in Chuuk State in preparation for future events.<sup>165</sup> USAID/OFDA has also helped develop standby agreements with

island-based organizations for logistical support during an emergency response, if necessary.<sup>166</sup>

A key preparedness component of the PREPARE program was actualized during the immediate aftermath of Typhoon Maysak. This was the deployment of pre-positioned, USAID-funded relief items stored and maintained by IOM in warehouses in FSM and RMI. This meant that humanitarian relief items, including large rolls of plastic sheeting for shelter, reverse osmosis water filtration machines, high-capacity water bladders, water distribution stands, and sealable water containers could be deployed immediately to these critically isolated communities. Other contributions from the governments of Australia, New Zealand and Japan, have also allowed practical assistance and technical help to reach these critically isolated communities.<sup>167</sup> Photo 6 shows non-food aid delivered to the worst typhoon-affected areas in Micronesia from the pre-positioned warehouse.<sup>168</sup>



Photo 6: Relief Supplies Delivered from Pre-Positioned Warehouses in Micronesia

## Disaster Management Organizations in FSM

The Office of Environment and Emergency Management (OEEM) is responsible for ensuring that FSM is prepared for natural disasters and other emergencies. In conjunction with the States, OEEM uses a VHF/High Frequency (HF) radio network for communication with communities. The current radio network is generally only used during working hours so providing communities with timely warning of emergency situations at other times can be problematic. OEEM will implement project TC/5 in Table N 5 to establish a 24/7 disaster/emergency alert capability.<sup>169</sup>

The Communication Division with the Department of Transportation, Communication and Infrastructure (DTCI) supports the National Government's communications needs including leveraging FSM's improving broadband capacity. All branches of governments

depend on effective communication across the whole of FSM that often requires being off-island for extended. The Communication Division will undertake project TC/6 in Table N 5 to establish video conferencing capabilities for each branch of each national and state government to improve the efficiency and effectiveness of government administration and communication.<sup>170</sup>

## Community Based Disaster Risk Management in FSM

There is strong community participation in DRR activities in FSM. There are a number of organizations that have active programs at this level. This includes church groups, women's groups, youth groups, etc. Additionally, there are several NGO-run projects at this level including the IOM, the Micronesia Red Cross, and the Pohnpei Conservation Society. In addition, the Micronesia Conservation Trust runs a grant program offering financial support for conservation and CCA activities at the community level.<sup>171</sup>

Beyond the Typhoon Maysak response, the USG continues to support the development of local and community-level disaster relief and preparedness capability in FSM. For example, USAID/OFDA has previously provided support to the International Federation of Red Cross and Red Crescent Societies to strengthen the capacity of the Micronesia Red Cross Society.<sup>172</sup> The Micronesia Red Cross Society (MRCS), Palau Red Cross Society (PRCS), and RMI National Volunteer Group, supported by the International Federation of Red Cross and Red Crescent Societies, partner with local government agencies, businesses, and communities to build awareness of disaster response activities and cultivate a knowledgeable volunteer base for emergency responses. USAID/OFDA has provided \$260,000 to support the preparedness and mitigation activities of the MRCS, PRCS, and RMI National Volunteer Group.<sup>173</sup>

USAID/OFDA also contributed \$350,000 to IOM to build the resilience of vulnerable communities in FSM and RMI to natural hazards. The program aims to reach at least 500 students and 5,000 community members with information on DRR and climate adaptation, as well as support local and national government efforts to implement climate adaptation and DRM activities.<sup>174</sup>

## U.S. Government Agencies

U.S. Government & Overseas Humanitarian Assistance and Disaster Relief (USAID)

In November 2007, the U.S. House of Representatives approved the COFA Amendment Act of 2007, which amended the Compact relationship between the U.S. and RMI, FSM, and the Republic of Palau, most notably making USAID the lead federal agency in providing future disaster-related assistance to RMI and FSM. The amendment also clarifies the eligibility of citizens of Freely Associated States residing in states or territories to receive the legal assistance provided by the Legal Services Corporation.<sup>175</sup>

In November 2008, USAID assumed responsibility for disaster response and reconstruction in FSM and RMI from the U.S. FEMA, reflecting the transition of FSM and RMI from U.S.-administered trust territories to independent countries. USAID and FEMA developed an Operational Blueprint to provide a framework for USG disaster response and reconstruction in the two nations, under which USAID maintains FEMA's previous commitment to supplementing host government efforts as necessary to provide humanitarian assistance in the aftermath of significant disasters. USAID's Office of U.S. Foreign Disaster Assistance (USAID/OFDA) collaborates closely with FEMA, as well as with USAID/Philippines and USAID's Asia Bureau, to implement programs in FSM and RMI. In Palau, USAID/OFDA responds to disasters through its normal disaster response mechanisms.<sup>176</sup>

In November 2013, staff from USAID and FEMA met to revise the Operational Blueprint that guides the hybrid USAID-FEMA agreement for assistance in FSM and RMI, which mandates a revision every five years. Participants discussed and agreed upon revisions to the document to improve the timeliness and effectiveness of USG disaster response in FSM and RMI, particularly using lessons learned from the recent drought response in RMI. USAID and FEMA also mapped the disaster response and reconstruction process, outlining national government, USAID, and FEMA actions for each stage of a likely disaster to improve coordination and define roles and responsibilities.<sup>177</sup>

## International Agencies and Donors Assisting with DRM

FSM has the following Pacific Humanitarian Team member organizations and agencies:<sup>178</sup>

- Infrastructure Maintenance Fund (IMF)
- IOM
- Red Cross
- UNDP
- United Nations Population Fund (UNFPA)
- United Nations Children Fund (UNICEF)
- WHO

## Foreign Disaster Relief and Emergency Response

As previously mentioned, USAID is the lead federal agency in providing future disaster-related assistance to RMI and FSM. Below is the description, response, and notification of the disaster relief process.

### *Disaster Relief Program Description*

Pursuant to 10 U.S.C. 404, the DOD can assist foreign countries to respond to manmade or natural disaster situations when necessary to prevent loss of lives. After the local U.S. Embassy has officially declared a disaster, the OFDA assesses the needs and priorities of the country and may request DOD assistance. The assistance may be in the form of transportation, excess property items, Humanitarian Daily Rations (HDR), or some other commodity. The Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) appropriation or USAID may fund transportation of disaster relief.

### *Foreign Disaster Relief and Emergency Response*

When a foreign country suffers a disaster, it may request assistance through the U.S. Embassy. DOS and OFDA validate the request. If deemed necessary, the DOS requests disaster relief assistance from the DOD. Assistant Secretary of Defense (Special Operations and Low Intensity Conflict) approves the request and forwards it to Defense Security Cooperation Agency (DSCA) for action. DSCA (Programs Directorate) identifies the required supplies (HDRs, Excess Property, etc.) and works directly with the Joint Staff Logistics Directorate (J4) to provide transportation in support of disaster relief efforts.

### *Congressional Notification for Foreign Disaster Assistance*

Not later than 48 hours after the commencement of disaster assistance activities, the President is required by law (10 U.S.C. 404) to transmit a report to Congress containing notification of the assistance (proposed or provided) and a description of the following as is available: the man made or natural disaster for which disaster assistance is necessary; the threat to human lives presented by the disaster; the U.S. military personnel and material resources involved; the disaster assistance provided by other nations or public or private relief organizations; and the anticipated duration of the disaster assistance activities.<sup>179</sup>

## Laws, Policies, Plans, and Programs on Disaster Management

USAID's Five-year Disaster Preparedness for Effective Response (PREPARE) Program<sup>180</sup>

USAID's five-year Disaster Preparedness for Effective Response (PREPARE) program follows the Disaster Mitigation, Relief, and Reconstruction Program (DMRRP), in which IOM established an operational and logistics presence in five locations in FSM and RMI. This entailed pre-positioning humanitarian relief supplies and equipment and enhanced standby capacity for logistics, medical response, and reconstruction of housing and public infrastructure.

Activities:

- PREPARE strengthens contingency planning for a variety of context-specific hazards throughout the islands, and engages governments, the Red Cross Societies, civil society, and first responders to have well-defined and coordinated roles within disaster responses. Using tabletop and live simulations, these actors will be better prepared to respond to typhoon, tsunami, drought, landslides, and crisis situations. The program also trains Micronesians and Marshallese to become emergency medical responders, and enhances the capacity in remote islands/atolls through radio outreach and the drafting of community-driven preparedness plans.
- PREPARE refines and prepositions assessment tools to rapidly identify relief and reconstruction needs during disasters. The

program also maintains desalination and power generation capacity that can further expedite relief efforts. PREPARE works with local and international experts to design culturally relevant and environmentally appropriate houses and establish distribution modalities to enable the rapid reconstruction of housing and public infrastructure.

- PREPARE coordinates comprehensive geospatial maps to coordinate relief activities during the disaster response phase. The program also facilitates post-disaster recovery and reconstruction efforts.

#### Impact:

- Improved capacity of remote outer island residents to mitigate disaster impacts, respond effectively to early warning notifications, and report key post-event needs
- Streamlined, well-coordinated disaster preparedness and response efforts from local to international actors
- In the event of a disaster exceeding host country capacity, facilitation of a rapid and appropriate response by the U.S. Government and external actors to relief, recovery, and reconstruction needs
- Maintenance and operationalization of prepositioned assets that enhance post-disaster lifesaving and reconstruction efforts

#### Goal:

- To increase the resilience of FSM and RMI in mitigating the effects of natural disasters by enhancing national and local capacities for disaster preparedness, response and recovery

#### Objectives:

- Strengthened capacity of Government of FSM and RMI and NGOs to prepare for, and respond to, large and small-scale disasters
- Reinforced contingency planning efforts by emergency response information systems and emergency stockpiles
- Coordination of emergency operations support and post-disaster reconstruction for the U.S. Government

FSM also has the following plans and policies that may relate to disaster management. Many are discussed in the National Progress Report on the Implementation of the Hyogo Framework for Action (2011-2013) in the appendix of this handbook.<sup>181</sup>

#### *Multi-State Multi-Hazard Mitigation Plan for FSM (2005)*

This Multi-State Multi-Hazard Mitigation Plan for FSM (the Plan) is the main statutory item dealing specifically with the issue of DRR. This plan contains national and state level mitigation plans for all hazards was prepared by the National Emergency Management Office, with input from state residents, responsible officials, U.S. government agencies, and URS Corporation consultants and with the support of FSM and the U.S. Department of Homeland Security's FEMA. The Plan is a comprehensive description of FSM's goal to reduce or eliminate the impact of disasters.<sup>182</sup>

#### *FSM Strategic Development Plan 2004-2023 (2004)*

The FSM Strategic Development Plan 2004-2023 does discuss natural disasters in various areas but in small sections. Strategic Goal #5 is to "provide efficient and cost-effective economic infrastructure to support competitive private sector development." The rationale behind this strategic goal is that "FSM economy suffers from all of the constraints and vulnerabilities common to small island economies, including, distance from supply and product markets, high transportation costs, natural disasters, small and fragmented domestic market size, etc." It is also noted that there is a need for "Increase preparedness and skills/capacity of relevant government and private sector agencies to rapidly respond to pollution emergencies (e.g., oil spills, ship groundings, natural disasters, etc.)"<sup>183</sup>

#### *FSM Nation Wide Climate Change Policy (2009)*

The focus of FSM's Nation Wide Climate Change Policy is to mitigate climate change especially at the international level, and adaptation at the national, state, and community levels to reduce FSM's vulnerability to climate change adverse impacts. Implementation of this Policy is to integrate climate change into other policies, strategies and action plans including disaster preparedness and mitigation.<sup>184</sup>

#### *FSM Agriculture Policy 2012-2016 (2012)*

FSM's Agriculture Policy, which is the conclusion of a participatory consultative process among a wide range of stakeholders across the four states, provides the basis for action by both public and private sectors to invigorate sustainable agriculture growth in

the FSM. It recognizes the major role played by traditional farming systems and the impact of socio-cultural realities. In addition, the FSM Strategic Development Plan (2004-2023) calls for an agreed vision and adherence to a national agriculture policy framework.<sup>185</sup>

#### *FSM Environment Sector 5 Year Plan 2010-2015 (2008)*

The FSM Environment Sector 5 Year Plan is a more focused plan for yearly projects for the governments to move the nation/states forward in accomplishing targeted outcomes in a systematic approach. This plan did not replace the Environment Sector Plan in the Strategic Development Plan (SDP). The 5 Year Plan identified priority projects within the Environment Sector in the SDP was to be undertaken, with funding from the amended compact environment sector.<sup>186</sup>

#### *FSM Infrastructure Development Plan FY2016-FY2025*

This Infrastructure Development Plan for the Governments of the FSM was prepared by the Department of Transportation, Communication and Infrastructure in consultation with the States of Chuuk, Kosrae, Pohnpei and Yap. The Plan covers the infrastructure in ten sectors: electric power, water/wastewater systems, solid waste management, road and pedestrian facilities, maritime transportation, air transportation, telecommunications, education, health and government administrative buildings.<sup>187</sup>

## Education and Training

### *Institutionalizing DRM Training*

Secretariat of the Pacific Community (SPC) works in partnership with National Disaster Management Offices in Pacific Island Countries to institutionalize DRM training within established training and education providers. Examples of this include Fiji's Public Service Commission, which now includes Introduction to Disaster Management and Initial Damage Assessment in its portfolio of training available to Public Servants. The Solomon Islands National University, Atoifi Adventist College of Nursing and Helena Goldie College of Nursing include an abridged version of the Introduction to Disaster Management and Initial Damage Assessment courses as part of the curriculum for all nursing students. In partnership with SPC, Fiji National University offers a full (four course) Post Graduate Certificate in DRM.<sup>188</sup>

### *PREPARE (USAID's Five-Year Disaster Preparedness for Effective Response Program)*

Since 2013, PREPARE has focused on coordination and capacity enhancement. Program staff engages local and national authorities, first responders, civil society, and the Red Cross Societies to update and test preparedness procedures. The goal is to have harmonized roles within disaster responses, so that even remote islands have plans that are linked to national and, international relief efforts, when required. PREPARE has trained emergency first responders, convened workshops to enhance emergency preparedness plans in outer islands, and facilitated tabletop simulations with national-level disaster committees. Contingency plans for a variety of context specific hazards have been created and are regularly updated. For example, plans may be to accommodate for the anticipated impacts of the El Nino phenomenon currently forecast for the region.<sup>189</sup> This program is discussed in more detail earlier in this document.

### *USAID/OFDA*

USAID/OFDA supports disaster preparedness in FSM and RMI through capacity building activities for local and national government officials by way of The Asia Foundation's (TAF) Pacific Islands DRM Program 2. In FY 2010, USAID/OFDA awarded \$750,000 to TAF's three-year program for national and regional disaster management trainings in FSM and RMI, as well as 12 other South Pacific nations. The program also included initiatives to develop and adapt training materials relevant to the region for use by national governments.<sup>190</sup>

### *IOM Micronesia-CADRE*

With support from the Australian DFAT, IOM Micronesia has continued to build disaster resilience through schools and communities in FSM and RMI. To date over 10,000 students have participated in emergency training while 4,000 students have completed the two-week Climate Adaptation and Disaster Risk Education (CADRE) module and 400 teachers have received CADRE teacher training. The national curriculum in FSM was formally revised in 2014; IOM and the Pacific Islands Climate Education Partnership have distributed the curricular changes to science teachers. CADRE focuses on schools as community spaces of learning, where community members feel their children are safe, as evacuation centers in times of disaster and as gathering points. In addition to teaching

students about climate change and disaster preparedness, CADRE focuses on school safety and preparedness. To date, over 200 school personnel have been certified as Emergency First Responders and 50 medical kits have been pre-positioned in schools. Recent survey data provided evidence of grassroots level activities; respondents indicated that they had saved three lives by using the training they had received through the program.<sup>191</sup>

During the visits, the CADRE Plus team works with community members to create a Disaster Committee, plan and run drills for community-specific hazards, and develop emergency management skills of community leaders. Community members are trained and certified in disaster search and rescue, water quality and conservation, and basic first aid by the Red Cross. Through the trainings and workshops, communities gain the skills and tools they need to prepare and manage for disaster on their own.<sup>192</sup>

## Disaster Management Communications

In 2015, an IOM consultant visited FSM and RMI to conduct a survey of all the radio stations. He determined the areas that could be reached by each radio station based on the radio infrastructure at each transmitter as well as the capability to receive transmission based on quality of available radio receivers.

In early 2015, PREPARE began an assessment of the capacities and reach of AM/FM radio stations in both countries. Armed with the knowledge of each stations' reach, PREPARE is now deploying radio specialists to help ensure that early warning messages are quickly and effectively conveyed from the main to outer islands. These radio specialists will help create local preparedness messaging to improve disaster readiness. A key step will be listening to and learning from that same community in Ulithi who experienced such high wind speeds but who were able to prevent loss of life, and disseminating these messages throughout the region.<sup>193</sup>

Information on disaster and hazard risks is generally available for the four states in FSM. However, there are few networks, portals or information sharing mechanisms, which results in information not being easily accessible to state government and civil society stakeholders. FSM has limited mechanisms for widespread dissemination of disaster information.<sup>194</sup>

All Pacific Island Countries and Territories have Meteorological Services. During the past decade there has been significant development and general improvement in their capacity and capabilities. Pacific Island Countries and Territories, working closely together with developed Members of the Secretariat of the Pacific Regional Environment Programme (SPREP) (Australia, France, New Zealand and USA), other countries (including China, Italy, Denmark, Finland, Japan and the UK) and the global network of meteorological infrastructure and services provided through the World Meteorological Organization (WMO) has worked on capacity development and training. This has been undertaken to improve technical skills needed to deliver weather and climate services in the Pacific Island Countries and Territories.<sup>195</sup>

Technical skills for weather services include surveillance, forecasting and warning, supply and maintenance of equipment and data collection and management (including processing, storage, access and exchange of near real-time weather data). Technical skills for climate services include collection of, archiving, quality control and management of historical climate data, supply and maintenance of equipment, analyses of climate data, and capability for seasonal and inter-annual predictions and climate change projections (scenarios).<sup>196</sup>

Despite the progress made, much remains to be done to bring many NM Ss up to the level that will ensure they can meet their mandates and serve their nations effectively. The current capacity at the national level varies greatly between NM Ss. Most NM Ss in the region operate with poor infrastructure and limited capability. Their climatological services are generally poorly developed or non-existent. In a number of instances, Pacific Island Countries and Territories rely mainly on external support to provide basic climatological services.<sup>197</sup>

## Responsible Agencies for Flood and Storm Warning

The National Weather Service (NWS), Pacific Region Headquarters located in Honolulu, Hawaii has administrative and management responsibilities for all NWS field operations in FSM. The NSW Pacific Region Headquarters operates five Micronesian Offices in cooperation with FSM, the Republic of Palau, and RMI in accordance with the provision of the Compact of Free Association between the U.S. and each



Micronesian government. The five Micronesian Weather Service Offices provide adaptive weather forecasts and warning to their local constituents. The Richard H. Hagemeyer Pacific Tsunami Warning Center located on Ford Island, Hawaii on the island of Oahu serves as the operational center of the Tsunami Warning System (TWS) in the Pacific. The TWS locates and detects major earthquakes in the Pacific Basin to determine whether they have generated tsunamis and provide timely and effective tsunami information and warnings to the population of the Pacific. These offices also provide adaptive weather forecasts and warnings to their local constituents. The Pacific Region Headquarters also oversees the Central Pacific Hurricane Center and the Pacific Tsunami Warning Center, and hosts the International Tsunami Information Center.<sup>198</sup>

The warnings supplied by the NWS include floods, strong winds, heat waves, typhoons, king tides and tsunamis. Flood warnings provide warnings for potential secondary impacts such as landslides and dam bursts. Heat waves provide warnings for high wild fire risk. The National Oceanic and Atmospheric Administration (NOAA) also provides seasonal and long-term forecasts, often associated with El Nino and La Nina cycles, for typhoon activity and drought risk. The monitoring component and warning component is likely to be the strongest element of the Early Warning System.<sup>199</sup>

## Early Warning Systems

The Joint Typhoon Warning Center (JTWC) in Hawaii forecasts Tropical Cyclones.<sup>200</sup> JTWC initiates tropical cyclone warnings when **one or more** of the following four criteria are met:<sup>201</sup>

- Estimated maximum sustained wind speeds within a closed tropical circulation meet or exceed a designated threshold of 25 knots in the North Pacific Ocean or 35 knots in the South Pacific and Indian Oceans;
- Maximum sustained wind speeds within a closed tropical circulation are expected to increase to 35 knots or greater within 48 hours;
- A tropical cyclone may endanger life and/or property within 72 hours; and
- U.S. Pacific Command directs JTWC to begin tropical cyclone warnings.

For tropical cyclones occurring in the western Pacific and Indian Oceans, JTWC products are transmitted no later than 3 hours past the synoptic hour. Because the synoptic hours

are 00Z, 06Z, 12Z, and 18Z, warnings will be available by 03Z, 09Z, 15Z, or 21Z. For the eastern North Pacific Ocean, JTWC products are transmitted no later than 4 hours after the synoptic hour (04Z, 10Z, 16Z, or 22Z).<sup>202</sup>

### *Dissemination:*

State Disaster Coordination Officers are responsible for the dissemination of early warnings, once information has been received from the Weather Service Offices. In the major population centers, the following methods have been employed to disseminate warnings for fast on-set hazards.<sup>203</sup>

- Pohnpei: Police/Fire sirens and Public Address System (PA). The local media on FM and AM frequencies
- Yap: Police cars with PA/siren systems and State-owned FM and AM radio station.
- Chuuk: Police cars with PA/siren systems and State-owned FM and AM radio station.
- Kosrae: Police cars with PA/siren systems and State-owned FM and AM radio station.

### *Weather Alerts in Remote Communities in FSM:*

Some communities in the outer islands of FSM and RMI have a means of receiving warnings for typhoons, tsunamis, and other extreme hydrometeorological events; however, limited electricity often prevents their ability to use primary communications systems 24 hours a day. Some communities lack access to sophisticated communications devices and remain unaware as storms approach. To address this situation, USAID/OFDA has contributed \$300,000 to NOAA to provide an alert system for climate, weather, and other warnings in remote locations in FSM and RMI. This messaging system connects meteorological authorities with emergency managers when a hydro-meteorological event is imminent and evacuations may be necessary. The system's terminals are designed to operate in remote and environmentally harsh environments and do not require a consistent energy source to function.<sup>204</sup>

### *Emerging Early Warning Systems Project:*

IOM will start implementation of the World Bank-funded project around the Community Vulnerability and Capacity Mapping, Geo-tagging, Stock taking Exercise and Assessment. The project will work with communities to standardize people-centered Early Warning Systems and then create best practices at the national level. The project will also work to map

emergency evacuation centers in FSM and geotag key infrastructure in RMI.<sup>205</sup>

Most of the 50 Outer Islands and Atolls of FSM are equipped with HF radios. The early warning radio communication network is being upgraded as part of the ACP-EU EDF 9 B program, which has recently completed the construction of new EOC buildings in each State. Government is currently reviewing its equipment needs for early warning communications.<sup>206</sup>

## Military Role in Disaster Relief

FSM does not maintain Armed Forces. Defense requirements of FSM are almost entirely met and paid for by the U.S. under the COFA. However, there is a paramilitary Maritime Wing operating with FSM national police. Their primary function is fishery protection within the Exclusive Economic Zone. These vessels have the capability to deploy to any of the states/atolls, but have the ability to cover only a small area of the Exclusive Economic Zone. The paramilitary Maritime Wing also has a limited capability for search and rescue and anti-smuggling patrols. Military tasks are undertaken by U.S. Navy vessels operating in the area.<sup>207</sup>

FSM has no air force. However, U.S. Coast Guard aircraft operations extend to FSM. Australia and New Zealand also provide occasional air surveillance with the agreement of the U.S. Patrols of the Exclusive Economic Zone are coordinated by FSM Division of Marine Surveillance.<sup>208</sup>

## Foreign Assistance and International Partnering

FSM receives a lot of assistance from regional organizations with regard to capacity building in the field of DRM. Other organizations that engage in capacity building initiatives include NOAA, IOM, the Food and Agriculture Organization (FAO), WHO, Economic and Social Commission for Asia and the Pacific (ESCAP), PCC, Building Owners and Managers Association International (BOMA), etc.

Capacity building, by its nature, is a long term and on-going activity. No evaluation of capacity building initiatives to date has been carried out but anecdotal evidence suggests that knowledge and capability amongst relevant agencies is increasing at the national level. Many capacity building initiatives have been ad hoc

and a constraint in monitoring the efficacy of these initiatives is the absence of a DRM capacity building plan or framework. Such a framework would assist in establishing a baseline from which progress could be measured. Being a small island country, much of the capacity building and training initiatives have targeted agencies at the national level. Going forward it will be important to begin to target DRM trainings at the State and Community levels. Training at these levels should be outcome-driven in the sense that they result in tangible products, such as community DRM plans.<sup>209</sup>

While the U.S. through the Amended Compact and Federal grants is the dominant partner, other main bilateral partners include Australia, China, Japan, the European Union through regional bodies such as the Secretariat of the Pacific Communities, and the United Nations.

Historically, FSM's dialogue and coordination with non-U.S. bilateral development partners has been weak due to the dominance of the Compact, but with 2023 looming has recently been strengthened.

An Overseas Development Assistance (ODA) policy was approved by Congress in January, 2014. The purpose of the policy is to establish approaches to managing ODA such that benefits are maximized for all stakeholders. The policy acknowledges, recognizes and respects the unique circumstances of each state but also seeks commonalities across FSM. Implementation of the policy began in 2014.<sup>210</sup>

*Chuuk Assistance from New Zealand Embassy, IOM, DFAT*

Earlier in 2016, and with support from the New Zealand Embassy, IOM provided rainwater-harvesting assistance and education to 22 communities throughout Chuuk, reaching more than 20,000 people. In total, the intervention increased rainwater storage capacity by 225,000 gallons for the targeted communities. This additional collection and storage capacity has assisted the communities as they struggle to cope with current drought conditions. In response to the ongoing drought, IOM will build on previous efforts and construct rainwater catchment and storage systems in 16 communities with support from Australian Aid. The installation of the catchment and storage systems will address post-Maysak Typhoon recovery needs, provide relief during the ongoing drought and increase the resilience of these communities by bringing long-

term, sustainable storage capacity commensurate with the size of the population in each location.<sup>211</sup>

#### *Relations with the U.S.*

U.S. foreign assistance focuses on strengthening FSM's climate resilience through disaster management. The Governments of FSM and the U.S. maintain deep ties and a cooperative relationship. Reflecting a strong legacy of trusteeship cooperation, over 25 U.S. federal agencies operate programs in FSM.

Under the Compact, the U.S. has full authority and responsibility for the defense and security of FSM. This security relationship can be changed or terminated by mutual agreement. Also under the Compact, FSM citizens can live, work, and study in the U.S. without a visa. FSM citizens volunteer to serve in the U.S. Armed Forces; they are also eligible for admission to U.S. Service Academies. Americans can live and work freely in FSM without the need for a visa.

Pursuant to the Compact of Free Association between the U.S. and FSM, the U.S. Government provides grant and program assistance. The U.S. provides over \$130 million in direct assistance, including additional federal grants and services, every year until 2023. This assistance also includes the systematic reallocation of a portion of the direct aid to a jointly managed Trust Fund.

The Compact's overall goal is to assist FSM on its path to economic self-sufficiency post 2023. A Joint Economic Management Committee, consisting of representatives of both nations, is responsible for ensuring that assistance funds are spent effectively, with the aim of fostering good governance and economic self-reliance. Grant assistance under the Amended Compact focuses on six sectors: education, health, infrastructure, public sector capacity building, private sector development, and the environment. The U.S. Department of the Interior is responsible for monitoring and implementing the Amended Compact.<sup>212</sup>

Since FY 2011, USAID/OFDA has provided the U.S. Geological Survey with nearly \$147,000 to conduct landslide susceptibility assessments in FSM in order to reduce risks associated with landslides, a common hazard during typhoon season. By identifying potential hazards, developing hazard maps, and formulating landslide-avoidance plans, the project is enabling the development of early warning mechanisms that alert populations to seek safe shelter during periods of intense rainfall.<sup>213</sup>

USAID/OFDA has provided more than \$2.2

million in the Pacific Islands DRM Program 2 since the program was initiated in FY 2010 to support national-level trainings in FSM, Cook Islands, Fiji, RMI, Samoa, the Solomon Islands, Tonga, and Vanuatu.<sup>214</sup>

#### *Relations with Pacific Island States*

When the former Trust Territory of the Pacific Islands split into the U.S. Commonwealth of the Northern Marianas and the freely associated states of FSM, the Republic of Palau and RMI, a degree of tension between the entities emerged. These differences have largely been resolved through regular meetings of the leaders of the Micronesian states. Co-operative efforts in patrolling the Exclusive Economic Zones have also improved relations.<sup>215</sup>

#### *Relations with the Australian Government*

DFAT is a donor to FSM issues relating to migration, climate change, environmental degradation, fisheries management, maritime security, governance, health, education, building resilience, and gender equality. Australia's aid program in the North Pacific is focused on FSM, the Republic of Palau, and RMI. The Australian Government has provided \$10 million in total ODA to the North Pacific will provide an estimated \$9.8 million in total ODA in 2016-17. This will include an estimated \$5 million in bilateral funding to the North Pacific.<sup>216</sup>

Australia and FSM share a common interest in supporting economic and human development. The two countries have a bilateral relationship supported by shared regional interests, particularly ensuring maritime and transnational security and sustainable management of fisheries. As a regional neighbor, Australia is well placed to work closely with the FSM Government and civil society to support FSM's development efforts. Australia's bilateral program is focused on three objectives: improving the quality of education; building resilience; and achieving gender equality and enhancing women's empowerment.<sup>217</sup>

Economic loss due to illegal, unreported, and unregulated fishing to the Pacific island states is approximately \$1.6 billion annually, equivalent to 40 percent of the value of the annual catch. Australia's Patrol Boat Program provides boats to FSM among other Pacific nations. This has a particular impact on the small Pacific Island States as they are able to police and regulate activities across vast stretches of water. These patrol boats have enabled countries with limited fiscal resources to patrol their territorial

waters and Exclusive Economic Zones. The lightly armed vessels are suitable for maritime surveillance and patrol, as well as fisheries protection.

The Patrol Boat Program also assists in combating transnational crime. The boats provide the island nations a platform that allow their governments to more effectively administer their territorial possessions, respond to humanitarian emergencies (including search and rescue), and have helped to increase the number of trained mariners. While Australia's Pacific Patrol Boat Program may be strategic to increase their influence in the Pacific region, and beyond, the small Pacific Island States welcome the aid and attention.<sup>218</sup>

A valuable part of the project is the people who go with the Pacific Patrol Boats and the personal networks created. The naval advisers give Australia a presence throughout the region. They are valued by the island maritime agencies for their help in-country, providing a facilitating role in identifying training and developing a more mature maritime enforcement arm.<sup>219</sup>

Typhoon Maysak hit FSM in late March 2015 causing widespread destruction to properties, infrastructure and crops in Chuuk and the outer islands Ulithi and Fais in Yap. The patrol boats were immediately deployed through the region to conduct damage assessment and to ensure

delivery of urgent items and humanitarian supplies could be provided, along with assessment and medical teams.

Immediately after the passage of the Typhoon, the Government sent one patrol boat (FSS Independence) to the outer islands of Chuuk and another patrol boat (FSS Micronesia) was sent to Yap's outer islands. While providing assistance, one boat managed to apprehend four illegal fishing boats in FSM waters. This demonstrates that the flexibility to switch role when circumstances demand it. Both vessels transported national government officials to assess damages in the affected areas and identified key priorities. A third patrol boat (FSS Palikir) was also deployed to provide assistance to the outer islands of Chuuk and Yap but had to return due to some minor damage and needed minor repairs.

The Australian Defence Force Technical Advisor CPO Hamilton assisted the National Police Maritime Wing with the preparation and deployment of the vessels. The vessels visited isolated islands bringing cases of bottled water and medical supplies.<sup>220</sup> Photo 7 shows images of the three patrol boats that Australia provided FSM; they were used to respond to Typhoon Maysak (left: FSS Palikir, middle: FSS Micronesia, right: FSS Independence).<sup>221</sup>



Photo 7: Pacific Patrol Boat Program



# FEDERATED STATES OF MICRONESIA

## Infrastructure

Disaster Management Reference Handbook | November 2016

# Infrastructure

Overall, the quality of Micronesian infrastructure is poor. Spending on infrastructure is complicated by the need for all four states to agree on projects, and in the past allocated funds have been left unspent because of this.<sup>222</sup> The priority infrastructure development projects in the ten sectors at National and State level plus project management costs, institutional projects and infrastructure maintenance represent a total investment of \$1,082 million over the 10-year Plan period. Implementation has been planned over three periods; Period 1: FY2016 to FY2019, Period 2: FY2020 to FY2023, and Period 3: FY2023 to FY2025. Appropriation of all Amended Compact funding arrears is included in Period 1. The proposed sources of funding for FSM’s 10-year infrastructure investment program by implementation period (as of October 2015) are outlined in Table 2.<sup>223</sup>

Accountability for implementing the Plan at State level will lie with the Infrastructure Planning and Implementation Committees that were established more than 10 years ago.

An important improvement in this Plan is the establishment of a Project Management Office in each State, responsible to the Committee for the day-to-day planning and implementation of projects, initially on Amended Compact funded projects and progressively for the projects funded from other sources.

Typhoon Maysak caused a lot of damage to infrastructure in 2015. With support from the U.S. Government, IOM is working to repair and reconstruct public schools, health facilities, and community centers. Public utilities, government administration buildings, seawalls, and jetties are also being rehabilitated. A total of 127 public infrastructure facilities are being repaired in Chuuk and 62 in Yap. Working with the U.S. Peace Corps and USAID, IOM is assisting people to repair or rebuild their damaged and destroyed homes.<sup>224</sup> Traditional homes in FSM are made of wall weave, which does not necessary hold up to natural disasters such as Typhoons that cause high winds (Photo 8).<sup>225</sup> Members of the community are constructing new homes, providing jobs to 42 people in Chuuk and 162 in Yap. The tailored homes integrate cultural and practical considerations. Each home is equipped with a water catchment system, electrical

Infrastructure Investment Funding Source	Funding Amount (\$ millions)			
	FY2016 FY2019	FY2020 FY2022	FY2023 FY2025	FY2016 FY2025
FSM National Government	77.2	48.9	48.9	175.0
FSM State Governments (matching maintenance funds)	4.8	3.6	2.4	10.8
Bilateral Development Partners				
Amended Compact	207.4	71.7	23.8	302.9
Compact Trust Fund			24.5	24.5
US Federal Agencies	27.0			27.0
European Union	16.5	8.7	10.8	36.0
Japan	20.0	15.0	15.0	50.0
PR China	24.4	15.0	15.0	54.4
UN Climate Adaptation Funds	7.2	11.8	12.0	31.0
Multilateral Development Partners				
Asian Development Bank	17.0	16.5	16.5	50.0
World Bank Group		10.5	10.5	21.0
<b>Total:</b>	<b>401.5</b>	<b>201.7</b>	<b>179.4</b>	<b>782.6</b>

Table 2: Infrastructure Investment Program for FSM



Photo 8: Wall Weave Used in Traditional Yap Houses

connection, and is built to withstand winds of up to 95 mph.<sup>226</sup> Typhoon Maysak reconstruction program has provided vouchers for damages. Vouchers worth \$1.3 million (as of July 2016) have been distributed to nearly 1,200 families. The vouchers are used to purchase rebuilding supplies, food, clothing, appliances, and other materials.<sup>227</sup>

## Airports

There are four international airports, one for each state. FSM also has civil airfields.<sup>228</sup> Flights to the rest of the world are generally undertaken via the regional hub of Guam. There is no national airline in FSM. United Airlines provides scheduled passenger, cargo, and mail services from Chuuk and Pohnpei and feeder services to Kosrae and Yap.<sup>229</sup>

Flight schedules and routes are limited and subject to change. There may be few alternatives if flights are canceled or missed. The typical routing to get to Kolonia would be via Honolulu with intermediate stops in Majuro, Kwajalein, and Kosrae or via Guam with a stop in Chuuk. U.S. citizens should keep these logistical challenges in mind when traveling in the region.<sup>230</sup> Table 3 provides information including airport code and runway length for FSM Airports and civil (private) air strips.<sup>231</sup>

FSM Airports and Civil Airfields	IATA code	ICAO	City/location	Runway length
Kosrae International Airport	KSA	PTSA	Okat	5750 ft.
Pohnpei International Airport	PNI	PTPN	Pohnpei Island	6001 ft.
Chuuk International Airport	TKK	PTKK	Weno Island	6006 ft.
Yap International Airport	YAP	PTYA	Yap Island	6000 ft.
Woleai Atoll Airport	FM	N/A	Woleai Atoll	N/A
Pingelap Civil Airfield	N/A	N/A	Pohnpei State on Pingelap Atoll	1200 ft.
Fais Civil Airfield	N/A	N/A	Yap State on Fais Island	3000 ft.
Houk (Pulusuk) Civil Airfield	N/A	N/A	Chuuk State on Houk Island	1350 ft.
Mortlock Islands (Ta) Civil Airfield	N/A	N/A	Chuuk State on Ta Island	1350 ft.
Mwoakilloa Atoll Civil Airfield	N/A	N/A	Kahlap Island on Mwoakilloa Atoll	1200 ft.
Onoun (Ulul) Civil Airfield	N/A	N/A	Chuuk State on Onoun Island	1200 ft.
Sapwuahfik Civil Airfield	N/A	N/A	Pohnpei State on the reef adjacent to Ngatik Island	1200 ft.
Ulithi Civil Airfield	N/A	N/A	Yap State on Falalop Island	3000 ft.

Table Notes:

ICAO-code: International Civil Aviation Organization (ICAO) – a 4 letter airport location indicator

IATA-code: International Air Transport Association (IATA) a 3-letter identifier for the relevant airport.

N/A-not available

Table 3: List of Airports in FSM

## Seaports

There are deepwater ports of at least 10m depth at Tomil Harbour (Yap), Kolonia (Pohnpei), Lelu (Kosrae), and Weno, formerly Moen (Chuuk). Each has been developed to have some capacity to handle containerized cargo with some warehousing and transshipping facilities, but current volumes of cargo barely justify this investment.<sup>232</sup>

## Land Routes

### Roads

The majority of roads in FSM are unpaved, narrow, and have no separate walkway for pedestrians. Many roads are in a poor condition and can worsen during periods of rain. FSM has 240 km of highways, most of which are in relatively poor condition. About 42 km are paved.<sup>233</sup>

### Railways

FSM does not have a rail network.<sup>234</sup>

### Waterways

There are no significant internal waterways in FSM.<sup>235</sup>

## Schools

In FSM, USAID/OFDA has launched the CADRE Pilot Project to raise awareness of CCA and disaster preparedness in both schools and communities on Pohnpei Island through \$60,000 to IOM. To date, the CADRE Project has partnered with the Gaining Early Awareness and Readiness for Undergraduate Program to access nearly 400 eighth grade students at six elementary schools on the island.<sup>236</sup> FSM also has a CCA and DRR education modules in the schools.<sup>237</sup>

### School Enrollment

Using FSM 2010 Census results, the gross enrollment rate (GER) for primary school was estimated to be 97.0 percent and 76.0 percent for secondary school. On the other hand, the net enrolment rate (NER) for primary school was estimated to be 85.3 percent while secondary school NER was 54.7 percent. These results show that:

- There are children entering late or repeating the same grade in school, thus the higher

level of GER than NER, particularly in primary schools.

- Although net elementary enrollment in 2010 was high at 85.3 percent, the balance of about 15 percent was not enrolled in elementary school in 2010.
- High proportion of high school population (about 45 percent) is reportedly not enrolled in high school - either because they are still in elementary school, have gone on to college, or not attending school at all.

The GER in Yap, Pohnpei and Chuuk were higher than 100, indicating that children in elementary school age groups in these states entered elementary school at later ages or had been repeating the same grades.

### Educational Attainment

The 2010 FSM census shows that 72.6 percent people aged 25 years and over had completed elementary education; 40.9 had attained high school level education, while 11.8 percent had attained college or higher-level education. The remaining 8.1 percent were noted to be without any schooling or had attained below grade one level of schooling.<sup>238</sup>

### School Rehabilitation Projects

Pacific Partnership is the largest annual multilateral humanitarian assistance and disaster relief preparedness mission conducted in the Indo-Asia Pacific Region. While training for crisis conditions, Pacific Partnership, missions have provided critical infrastructure development to host nations through the completion of more than 180 engineering products as well as provided medical care and veterinary service. Photo 9 shows Pacific Partnership leadership and local FSM government officials during a ribbon cutting ceremony reopening the Rohi Elementary School after completing a renovation project on July 3, 2015.<sup>239</sup> Marines and Sailors attached to the Military Sealift Command joint high-speed vessel USNS Millinocket (JHSV 3) renovated two schools during their two-week stay during Pacific Partnership 2015. Millinocket served as the secondary platform for Pacific Partnership, led by an expeditionary command element from the Navy's 30th Naval Construction Regiment (30 NCR) from Port Hueneme, California.





Photo 9: School Rehabilitation Project

## Communications

FSM Telecommunications Corporation (FSMTC) is currently the sole telecommunications provider.<sup>240</sup> Services offered include satellite access for telephone, telex, and facsimile to anywhere in the world, as well as internet connections and email. In February 2009, a US\$30 million deal was signed to link Pohnpei and two islands RMI with the rest of the telecommunications world through an underwater fiber-optic cable. According to figures from the International Telecommunications Union (ITU), there were 8,453 fixed lines in use in 2010, and 27,518 mobile phone subscribers. Internet access is only available to about 26 percent of the population. Although there are no government restrictions, the number of independent media outlets is very small. There is one FM religious radio station and five AM radio stations, two of which are also religious. Radio stations for each of the four states are also available on the internet. Three local television stations are available, as well as cable stations on Pohnpei and Chuuk. However, there is a lack of consistent reliable access to broadcast media for numerous reasons, including typhoon-related damage, technical

issues, unreliable power supply, and financial problems.<sup>241</sup>

FSMTC continues to improve management, financial, technical and service delivery capacities and performance. FSMTC is proactive in leveraging external investments, particularly connections to the international fiber optic network, to bring contemporary telecommunications services and pricing to consumers. Current availability of high-speed telecommunications through terrestrial fiber optic cabling is limited to the vicinity of the primary road and some areas within Kolonia. There is limited availability of high-speed mobile telecommunications and many areas do not have any mobile telecommunication service. Although communities across FSM have reliable HF/VHF radio communications, these are not monitored 24/7 so communities are at risk from short-notice potential emergency/disasters (e.g. tsunami) or being able to respond to local emergencies (e.g. vessels in distress).<sup>242</sup>

Mail service to and from the FSM is good. The U.S. Postal Service picks up and delivers all mail to each of the states via air service, and FSM is part of the U.S. Zip Code system. These codes are Kosrae 96944, Pohnpei 96941, Chuuk 96942, and Yap 96943. The FSM Postal Service receives and delivers mail within each state. Mail rates from

the U.S. to FSM and from FSM to the U.S. are the same as U.S. domestic rates. International rates are also the same as those charged by the U.S. Postal Service. Express delivery is also provided by a variety of private carriers.<sup>243</sup>

## Utilities

### Power

Electric power is a significant cost to FSMTC and its reliability can be highly variable, particularly for remote facilities and sites and in times of emergencies/disasters.<sup>244</sup> The power distribution infrastructure of Chuuk Public Utility Corporation (CPUC) was severely affected with more than 70 percent of the power distribution network brought down by Typhoon Maysak in March 2015. CPUC carried out the restoration of power distribution until it was fully restored. However, portions of power distribution that were patched still required permanent repair. IOM and CPUC joined forces with a project implementation agreement valued at over US\$1 million to ensure that Chuuk's electricity supply is rebuilt. Infrastructure costs were covered and a power distribution line supervisor was engaged to oversee the asset replacement and recovery efforts. As each phase is completed, technical experts from IOM endorse the project components. This unique has resulted in continuing improvement to infrastructure and ongoing access to power for the people of Chuuk. This project is scheduled to be completed by the end of 2016.<sup>245</sup>

### Water and Sanitation

The household main drinking water and toilet facility are two indicators that are of particular importance as they are part of the MDG (Millennium Development Goals). Out of the total households in FSM, about two in every five households (18.5 percent) does not access improved drinking water, while three in five households do. This was more evident in the Chuuk State (18.2 percent), followed by Pohnpei (8.8 percent), Kosrae (7.6 percent) and Yap (1.6 percent). Almost half the households in FSM (43.5 percent) do not access improved type toilet facilities. More than half of all these households (53.4 percent) were located in the Chuuk State, 48.7 percent in Yap State, and 38.1 percent in Pohnpei. Only about two percent of households in Kosrae have no access to improved toilets facilities.<sup>246</sup>

FSM's main sources of fresh water are surface water, groundwater, and rainwater. The main challenges facing the water supply are climate change, deforestation of drainage basins, and the impact of human and animal activity on sanitation.<sup>247</sup>

The main objective of ADP water and sanitation projects has been to support efforts of FSM government in the four island states that have focused on policy reforms in the water supply sector, particularly in the areas of demand management and cost recovery. Health indicators have shown a high incidence of water-borne diseases, such as diarrhea and typhoid, which could be attributed directly to poor water supply, sanitation, and hygiene. Technical assistance to prepare a solid waste management system was provided in 2006. FSM is one of 21 members of the Pacific Water Association (PWA). The PWA's main objectives are to improve and enhance the water industry within member countries and to monitor comparative performance of their water and sanitation utilities against international benchmarks.<sup>248</sup>

IOM Micronesia has also facilitated 15 climate adaptation and disaster mitigation projects under CADRE. Among the key achievements is the capture of more than 50,000 gallons of water across 12 schools benefitting over 8,000 people. Solar installations in Chuuk and Ebeye have led to 8,460 watts of power being produced in schools and communities benefitting almost 3,500 people. A project at Sansrik Elementary School in Kosrae included installation of a two-hundred fifty foot gabion seawall and cleaning of the existing school septic tank.<sup>249</sup>

After Typhoon Maysak severely damaged FSM in late March 2015, the U.S. provided emergency water and sanitation aid. Between April 22 and May 1, IOM delivered USAID/OFDA-provided shelter and WASH supplies to benefit more than 200 storm-affected households in Chuuk and Yap states. USAID/OFDA transported 20 reverse osmosis water treatment units from RMI to FSM, ten of which were installed as of May 25, 2015. With support from USAID/OFDA and other donors, IOM established 17 water distribution points and distributed water containers to 3,000 families across Chuuk. IOM also coordinated with the Chuuk Public Utility Corporation to distribute 2,000 gallons of water per day to storm-affected communities throughout the Chuuk Lagoon islands. Additionally, IOM provided more than 530 families in the Chuuk Lagoon islands with hygiene kits.<sup>250</sup>



**FEDERATED STATES  
OF MICRONESIA**  
Health

Disaster Management Reference Handbook | November 2016

# Health

## Overview

Apart from its main states (Chuuk, Kosrae, Pohnpei, Yap), FSM is comprised of more than 600 outer islands with a significant population. On those islands are health facilities such as small clinics and dispensaries that provide a host of primary and preventive health services to their respective populations. Each of FSM's state hospitals is connected to the National Department of Health through local and wide area networks. The networks allow for the transmission of health system's data to the national statistician to alert for potential disease outbreaks and the publication of various reports such as Top 10 diagnosis by state, the nation's top 14 health systems status indicators and alerts for notifiable diseases and immunizations. There is also an initiative in progress by the South Pacific Community, an NGO, to improve satellite capability in the outer islands by connecting more of them to the main server. When this occurs the computer health systems network will incorporate the data management of mother and child healthcare, Tuberculosis (TB) program, NCDs, and laboratory. Also under discussion is a plan to implement an electronic inpatient health records management system.<sup>251</sup>

Each state government maintains its own health services with a centrally located hospital that provides a minimum range of primary- and secondary-level services, both preventive and curative. There are six private health clinics in the country and one private hospital. Health services are highly subsidized by state governments, except in the private clinics.<sup>252</sup>

## Healthcare System

FSM's health system has a Disaster Management/Mass Casualty Program in place. According to Dr. Arsenal, Chief Medical Officer, Chuuk State Hospital, Chuuk hospital owns a 60-bed portable, inflatable, hospital unit. The unit is self-contained and has an internal inflatable device. The hospital has engaged in an island-wide mass casualty drill to test the capability of the health team to assemble the portable hospital unit. To reduce tardiness for nursing staff working evening and night shifts, Chuuk hospital purchased a bus and offers transportation to its

evening and night shift workers. According to the Nursing Director, this benefit has tremendously reduced absenteeism.<sup>253</sup>

## Challenges in the Healthcare System

There are inherent weaknesses in the health system in FSM. Among them are a slow and cumbersome supply chain system that have delays, poorly equipped dispensaries, poorly managed hospital sanitation and infection control programs, poorly managed risk management programs, less than adequate public health interventions in the communities, inadequate functioning communications equipment to communicate with the outer island health facilities, and inability to provide healthcare to FSM's citizens living in the outer islands due to lack of transportation.<sup>254</sup>

Beyond the weaknesses in the health system, FSM is facing an epidemic of Diabetes Miletus Type-II, and completed suicide among males age 18 through 30 (vice attempted suicide). It is estimated that approximately sixty percent of the population has diabetes; the incidence of patients admitted to hospitals with diabetic complications is significantly affecting the health system, so much so that Diabetic hospitalizations have become one of FSM's national health indicators.<sup>255</sup>

Supply chain management is a major obstacle to consistent delivery of care at all levels of the health system in FSM. The current system of supply management is based on a cardex, manual inventory system. Supply technicians conduct manual inventories of departments' supplies based on predetermined levels. Inventories are determined and requests are forwarded to the central supply store and filled based on available stock. Delays and stock-outs occur routinely. Dispensaries in the outer regions submit monthly supply and medication requests to their respective state hospitals. If supplies are not available in the hospital's inventory, dispensaries must wait until they are received by the hospital.<sup>256</sup>

Dispensaries are often delayed in receiving requested supplies and medications due to their location from the main hospitals. Supplies must be delivered by boat from the hospitals to the outer islands. To save money on fuel costs, supplies are usually transported when a large enough inventory is established for several islands. According to Chuuk State's Dispensary Manager, supply delivery to the islands can take

up to two weeks.<sup>257</sup>

The lack of funding is significantly contributing to the lack of supplies in the health system. All levels of patient care delivery services lack basic wound care supplies and basic equipment for blood glucose determination due to lack of funding. The inpatient units are equipped with minimum levels of outdated equipment. The majority of IV infusions are gravity drips because IV pumps are in short supply. Hospital beds are in sufficient quantity, but many are old, rusted, and manually controlled. Some of the beds are infection control hazards due to torn mattresses with exposed foam. Many of the mattresses are bare because of a lack of bed linen.<sup>258</sup>

Human resource shortfall is a major factor affecting FSM's health system. Health workers are in great demand at all levels of the health system, to include Physicians, Nurses, Nurse Midwives, Medical Technicians, and Ancillary staff, such as House Keeping, Radiology, Dietary, Laboratory, and Facility Management. Compounding the problem of lack of trained medical staff is the fact that FSM does not have a medical or nursing school. One hundred percent of FSM's medical professionals are trained abroad. The majority of FSM's physicians and nurses are trained in either the Philippines or Fiji School. According to the Director for Nursing Services, FSM's Nursing Staff is in great need of additional training as the majority is either Licensed Vocational Nurses or Associates Degree Nurses with only two years of education. Because the majority of nurses are trained in Fiji, they do not have to pass a competency based licensure exam. After graduation they apply for licenses from FSM's Board of Health based on graduation from an academic institution; graduation determines competence. FSM is lacking specialty-trained nurses such as Emergency Room Nurses, Critical Care Nurses, Dialysis Nurses, Pediatric Nurses, Wound Care Nurses and Public Health Nurses. Chuuk State hospital has a total of 96 nurses on its staff, and only six have a Masters or Bachelor's degree; four are midwives, and two are nurse anesthetists. Currently the Department of Health is in the process of establishing the nation's first ever School of Nursing.<sup>259</sup>

An effective infection control program is grossly lacking. During a routine site survey of the inpatient units and the emergency department, staff was observed contacting blood saturated products without gloves, and initiating and disestablishing intravenous access

without wearing gloves. The Director for Nursing Services cited the need for infection control training as a top priority for the nursing staff. Chuuk hospital does not have isolation protocols in place although it admits multi-drug resistant tuberculosis patients, and patients admitted with wound infections. All inpatient units are open units not separated by curtains or wall dividers.<sup>260</sup>

Due to the lack of maintenance and housekeeping staff, Chuuk State Hospital is lacking in sanitation and basic cleanliness in and around the facility. The inpatient wards' toileting facilities are unsanitary. Many have faucets are leaky and to prevent water from collecting in bathroom and toileting facilities, catchment devices such as plastics pales are used. Shower facilities are not usable due to lack of sanitary conditions.<sup>261</sup>

Chuuk State Hospital does not have a Microbiologist on staff. While it does have the laboratory capability to perform Blood Type and Cross Match procedures, it lacks the necessary regulatory authority to maintain a blood bank. As a result, Chuuk State must maintain a walking blood bank for emergencies. The Lab routinely has significant shortfalls in reagents and blood bank supplies due the delays in the supply system. Although the Lab can perform basic chemistry panels, electrolytes, and liver functions, its infectious disease specimens must be mailed to Guam for evaluation; its tissue specimens are usually mailed to Hawaii.<sup>262</sup>

Suicide among males age 18 years through 30 years is the highest in the region. Currently the suicide rate is 13/100,000 of FSM population, and has been established as one of the nation's top health priorities. Ben Jesse, National Health Planner, and Acting Secretary of Health, stated the reasons for the elevated suicide rate is not known; however, he believes it is due to a host of factors to include, the high rates of unemployment, drugs, alcohol use, and family dysfunction. Currently there are no initiatives in place to deter the incidence of suicide, nor is there any research being conducted to determine why the rate is so high. To compound this problem, FSM does not have mental health professionals in its employment.<sup>263</sup>

FSM's National Health Plan, the 2004 Strategic Development Plan, written by the National Department of Health provides guidance for each state regarding the nation's health priorities. However, the National DOS has not been granted enforcement authority by the national legislature to enforce the violations of the Health

Plan. It is the responsibility of each state to implement and enforce the national health plan. Also, each state's Director of Health Services is charged by the National Secretary of Health to implement national health priorities, but they lack the authority to make changes to their own respective budgets. All requests for budgetary changes must be submitted to the National Legislature for approval. According to Pohnpei's State Health Director, the lack of enforcement authority at the national level, and the inability to make changes to budgets at the state level are major weaknesses in the health system. Another weakness in the health system is that each state is implementing the national health plan utilizing different strategy and standards. This methodology inhibits states from working closely together to reduce the nation's health disparities.<sup>264</sup>

The prevalence of Diabetes Miletus Type-II and the incidence of diabetic hospitalizations have increased from the previous year throughout FSM with the exception of Yap. Diabetes affects approximately 60 percent of the population. Lengths of stay in hospitals due to diabetes, diabetic wound management, and surgical procedures secondary to diabetes, are consuming a large amount of the nation's healthcare resources.<sup>265</sup>

#### *Strengths/Areas of Improvement*

FSM has a national health plan that established national health indicators for annual monitoring and reporting. These 14 health indicators measure health statuses, available essential drugs, healthcare utilizations (patient encounters), and functionality of bio-medical equipment including quality assurance in each state hospital. The national health indicators are used to monitor and track potential disease outbreaks and provide future projections for a myriad of healthcare expenditures. The indicators are:<sup>266</sup>

- Decentralize primary care services – number of encounters provided in homes and dispensaries will experience a 20 percent increase by 2010 (2004: 155,320; 2010: 88,241)
- Decentralize primary care services – number of patient encounters at hospitals' clinics will decrease by 10 percent by 2010 (2004: 90,273; 2010: 122,748)
- Immunization coverage of 2-year-old children is increased to not less than 90% by year 2010 (2004: 83%; 2010: 75%)
- Essential drugs and supplies available (2004: 63%; 2010: 94%)
- Bio-medical equipment for key Lab data is functional 80% of days (2004: 78%; 2010: 97%)
- The average length of hospital stay is less than 7 days for each state hospital by 2010 (2004: 6; 2010: 5.2)
- Infant mortality rate is reduced to less than 16/1000, by 2010 (2004: 19/1000; 2010: 10.2). \*Note: Outer islands data is not included. Infant deaths are under reported. In 2010, most infant deaths are due to pre-mature births (prematurity).
- Mental illness is reduced: Rate of completed suicide reduced to 10% (2004: 15.1/100,000; 2010: 13/100,000). Note: The suicide rate increased due to the number of completed suicides in Chuuk. Yap and Pohnpei reported 3 and 1 respectively in 2010
- The number of individuals enrolled under a health insurance plan is increased 10% by 2010 (2004: 20,617; 2010: 31,811)
- Off island medical referrals cost in all states reduced to less than 10% of total health sector expenditures (2004: 12%; 2010: 7.3%)
- At least 70% of 3rd graders receive sealant by 2010 (2004: 58%; 2010: 56%)
- Reduce the incidence of Diarrhea/GI disease by 10% by 2010 (2004: 5,052; 2010: 3,496)
- NCD Control: Reduce the incidence of diabetic hospitalization by 10% in 2010 (2004: 1,255; 2010: 995)
- Quality Assurance Systems Functioning (Yap is the only state with a functioning QA program)

## Communicable Diseases

Zika outbreaks have been reported in FSM. Local mosquito transmission of Zika virus infection has been reported in FSM. Local mosquito transmission means that mosquitoes in the area are infected with Zika virus and are spreading it to people. Because of the risk of birth defects in babies born to women who were infected with Zika while pregnant, women who are pregnant should not travel to FSM.

FSM's population is susceptible to several infectious disease threats such as Dengue, HIV, Hepatitis A, Malaria, Measles, Typhoid, Japanese B Encephalitis, Rabies, and Tuberculosis. More information on these communicable diseases can be found in the Travel Health Information Section (Appendix) of this document.<sup>267</sup>

## Non-Communicable Diseases

Pacific Island countries face a particular challenge with respect to non-communicable diseases (NCDs). A Global Burden of Disease 2013 study, covering 188 countries, showed the rising importance of NCDs as a cause of global death and disability.<sup>268</sup> NCDs are now the leading cause of death in most countries in the Pacific (Figure 7).<sup>269</sup>

The percent of people affected by NCDs will rise substantially in the Pacific in the coming decades. Pacific Island Countries have high rates of population growth, which add to public health needs but prevents economic growth. Most Pacific countries have relatively high total fertility rates and low contraceptive prevalence rates that are more akin to the global average for least developed countries. Behavioral risk factors, including tobacco use, physical activity, and unhealthy diet, are responsible for most of deaths due to NCDs. Dietary risk factors also constitute the highest behavioral risk factors for death due to diabetes. Low physical activity imposes significant risk of death caused by cardiovascular diseases, diabetes, and cancer.<sup>270</sup>

### Cooperation for Health

There are many improvements that FSM would like to make in regards to healthcare development. The FSM Strategic Development Plan 2004-2023 includes the following main objectives:<sup>271</sup>

- To improve primary and secondary healthcare, and public and preventive

- health services, including national environmental health, food and water sanitation;
- To improve maternal and child health, as well as immunization and family planning coverage;
- To prevent and control diabetes, cancer and other non-communicable diseases (NCDs), as well as address NCD risk factors, such as high consumption of unhealthy foods, substance abuse and tobacco use;
- Prevent injuries and improve mental health services; to prevent and treat tuberculosis, leprosy, HIV/AIDS, STIs and other endemic infectious diseases, as well as improve disease surveillance and outbreak response including hospital preparedness; and
- To effectively and efficiently provide leadership roles in reviewing, developing, directing and guiding policies related to national health issues.

FSM also received assistance in regards to healthcare improvement. The U.S. Peace Corps has volunteers in FSM. In Pohnpei, a Health Specialist, is working on NCD surveillance and monitoring, and is working on health messages to accompany recipes using local foods, as well as additions to the school health curriculum, and getting more people to exercise.<sup>272</sup>

Pacific Partnership also has provided medical care and training to FSM. For Pacific Partnership 2015, personnel and assets from all four branches of the U.S. Armed Forces, and

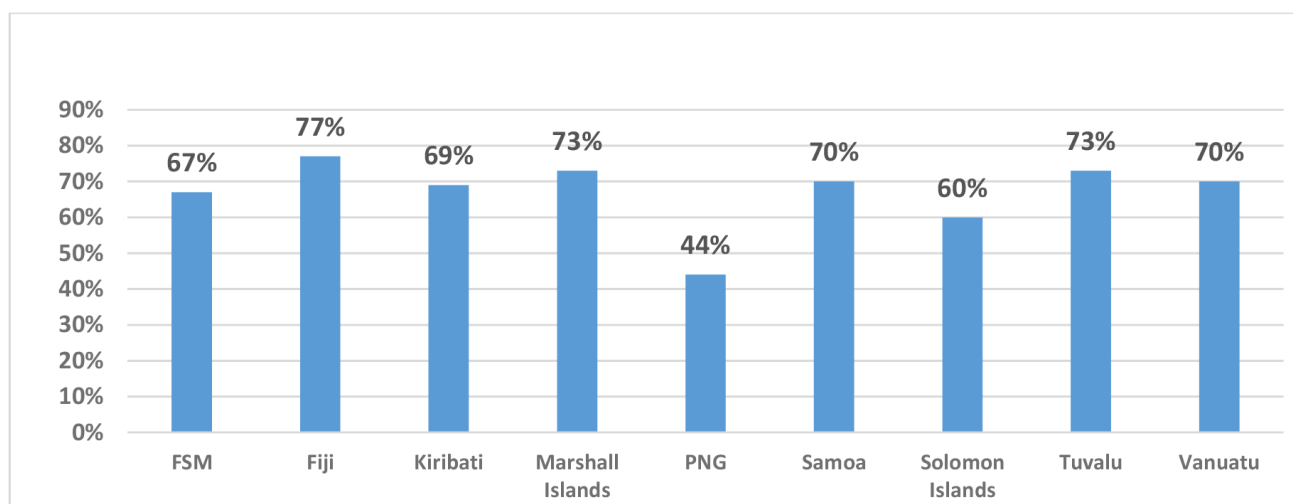


Figure 7: Estimated Percentage of Total Deaths Caused by Non-Communicable Diseases



Photo 10: Health Management Outreach, Pacific Partnership 2015

Homeland Security and the U.S. Coast Guard, partner nation militaries and non-government organizations from Australia, France, and New Zealand, and the NGO Project Hope participated. As a Combined Joint Task Force, the Pacific Partnership 2015-FSM team engaged in a variety of local outreach efforts in areas such as humanitarian civic activities, engineering projects, and medical, dental and veterinary services. Over 1,500 Pohnpeians and Chuukese were reached by direct care, almost 100 public health officials trained, and almost 300 people received training via the Dental outreach programs.<sup>273</sup> The medical team, attached to the Military Sealift Command joint high-speed vessel USNS Millinocket (JHSV 3), conducted multiple classes at the College of Micronesia-FSM designed to teach nursing students basic lifesaving skills and health management. Photo 10 shows Spc. Marcela Cavazos instructing students at the college.<sup>274</sup>





**FEDERATED STATES  
OF MICRONESIA**  
Women, Peace, and Security

Disaster Management Reference Handbook | November 2016

# Women, Peace, and Security

The promotion of gender equality and women's empowerment are important and affect sustainable development in FSM. Greater gender equality can enhance economic efficiency and improve other development outcomes. This occurs by removing barriers that prevent women from having the same access as men to the same rights, economic opportunities, and human resource endowments. Improving women's status also leads to more investment in their children's health and education.<sup>275</sup>

For women's role in DRR to be strengthened, it is important to address the issues that are particularly severe for women such as limitations of access, participation and contribution and gender-based violence. It is important that planning, investment and implementation is informed by sex and age disaggregated data and gender analysis at every level, and that resourcing, and budgeting for actions that include women and promote gender equality are developed. Rooted patriarchal values and perceptions prevalent in the region often extend to formal decision making and governance structures resulting in discriminatory property laws, access to education, information, opportunities of skills and capacity development.<sup>276</sup>

FSM remains one of the three countries in the world, which have never elected a woman to national political office. National Congress recently introduced a bill (FSM Bill No. 16–10) to reserve four seats out of the 14 for women, however this has not progressed.<sup>277</sup> Women in FSM do not hold any seats in parliament (0 out of 14 seats as of 2014).<sup>278</sup> There are three national cabinet women members. There is one woman cabinet member at the State Congress in Chuuk, two in Pohnpei, two in Yap and none in Kosrae. The lack of women's participation in the highest level of government decision-making is largely related to cultural stereotyping of men's and women's roles, based on traditional social hierarchies.<sup>279</sup>

The FSM Strategic Development Plan (SDP) 2004–2023 includes a strategic goal to mainstream gender issues into decision-making, policies and strategic development plans.<sup>280</sup> Although, FSM does have existing governmental

mechanisms in place under departments to address human rights issues, such as the Gender Development and Human Rights Office Desk under the Department of Health and Social Affairs, which coordinates human rights-related activities and obligations. FSM does not have a national human rights institution. FSM is still in the process of requesting a scoping mission from regional organizations, such as the Pacific Islands Forum Secretariat and the Secretariat of the Pacific Community/Regional Rights Resource Team.<sup>281</sup>

In March 2016, the Human Rights Council adopted the outcomes of the Universal Periodic Review of FSM. Jane J. Chigiyal, Permanent Representative of FSM to the United Nations, said that FSM had accepted 63 out of 95 recommendations, whereas the remaining 32 recommendations would form part of a working plan that would involve a lot of public awareness activities, reassessment of Micronesia's human and institutional capacities to harmonize its policies, and mainstream a people centered approach. They were urged to take concrete and rapid measures to address domestic violence issues and gender inequalities.<sup>282</sup> Domestic and sexual violence is a common cause of injury to women and children and a major contributor to social problems. A draft national domestic violence policy was reviewed at the 2010 Women's Conference before introduction into Congress.<sup>283</sup>

Australia is working to address issues of gender equality in FSM by funding priority initiatives under the Pacific Women Shaping Pacific Development FSM Country Plan 2015–18. This is part of the Australian Government's Pacific Women Shaping Pacific Development regional program, which commits \$320 million over ten years to improve the political, economic and social opportunities of Pacific women in 14 Pacific countries.<sup>284</sup>

During Pacific Partnership 2015, the U.S. made a concerted effort to engage with the vulnerable women and youth populations of Pohnpei by facilitating two separate youth engagement workshops that sought to provide the students of the Upward Bound, Gear Up and Talent search programs with positive and empowering engagements with TF Forager members. The CA team also facilitated an all-women's workshop for women from the community and women in leadership positions from TF Forager to interact in a women's only forum to discuss issues important to FSM women.<sup>285</sup>



# FEDERATED STATES OF MICRONESIA

## Conclusion

Disaster Management Reference Handbook | November 2016

# Conclusion

FSM is facing the challenges associated with climate variability and change. The country is vulnerable to natural hazards including typhoons, storm surge, droughts, flooding, as well as, secondary impacts, such as landslides. In addition, water shortages, and food shortages have also occurred during severe dry events.<sup>286</sup> Typhoons historically have presented an ongoing threat to FSM, including Typhoon Maysak, which caused serious destruction in March 2015.<sup>287</sup>

FSM has food and water security concerns. Drinking water sources are not stable and food availability is dependent on imports. High sea level in the past has damaged soil, food resources, and drinking water. Inundated coastal communities throughout FSM have in the past lead to a nationwide state of emergency and subsequent aid.<sup>288</sup> This has had a tremendous impact on agriculture, infrastructure, and social and economic development in FSM and has made FSM more reliant on aid.<sup>289</sup> After Typhoon Maysak severely damaged FSM in late March 2015, the U.S. provided emergency water and sanitation aid. IOM and USAID/OFDA provided shelter and WASH supplies to storm-affected households.<sup>290</sup>

There have been NGO water and sanitation projects to support efforts of FSM government in the four island states that have focused on policy reforms in the water supply sector. There are also climate adaptation and disaster mitigation projects present in the country. Installation of seawalls and cleaning of water facilities are included in these efforts.<sup>291</sup> Health indicators have shown a high incidence of water-borne diseases, such as diarrhea and typhoid, which could be attributed directly to poor water supply, sanitation, and hygiene.<sup>292</sup>

In addition to the water affecting health in FSM, there are inherent weaknesses in the health system. Among them are a slow and cumbersome dispensary supply chain system, poorly managed hospital sanitation and infection control programs, poorly managed risk management programs, less than adequate public health interventions in the communities, an inability to provide healthcare to FSM's citizens living in the outer islands.<sup>293</sup>

FSM receives a lot of assistance from regional organizations with regard to capacity building in the field of DRM. No evaluation of capacity

building initiatives to date has been carried out and many capacity building initiatives have been ad hoc. Monitoring the efficacy of these initiatives and a DRM capacity building plan or framework may be needed. Such a framework would assist in establishing a baseline from which progress could be measured. Being a small island country, much of the capacity building and training initiatives have targeted agencies at the national level. Going forward it will be important to begin to target DRM trainings at the State and Community levels.<sup>294</sup>

U.S. foreign assistance focuses on strengthening FSM's climate resilience through disaster management. An important pillar of USAID's disaster mitigation, relief, and reconstruction program in FSM is a cooperative agreement between USAID and its primary relief and reconstruction partner, IOM, which maintains offices in Pohnpei and Yap states in FSM. USAID also maintains a full-time presence in FSM through a DAC. The DAC works as a member of the U.S. Embassy country teams in FSM, and liaises with host governments and coordinates USG relief activities in FSM. USAID recently established a position for a Reconstruction Assistance Coordinator based at USAID/Philippines, who helps USAID fulfill the reconstruction component of its mandate as specified in the Operational Blueprint.<sup>295</sup>

DRR achievements need to be more comprehensive in FSM. Disaster risk is not taken into account in public investment and planning decisions. Provisions have not been made for managing disaster risk.<sup>296</sup> FSM does not have a National Action Plan for Disaster Management. They do have the Agreement to Amend Article X of the Federal Programs and Services Agreement between the Government of the U.S. and the Government of FSM, and a 2005 Multi-State Multi-Hazard Mitigation Plan.<sup>297</sup>

A national strategy to manage climate risks, and public education, based on community decision-making may facilitate improving food and water security for FSM.<sup>298</sup> FSM supports the integration of DRR and climate change, as evidenced in developing a Joint National Action Plan for DRM and Climate Change Adaptation (CCA). However, greater focus on implementation of community level activities and a dedicated government budget to support activities at the community level is necessary. In addition, National and State Disaster Management Offices are under-resourced in terms of core operating budget, staff, and equipment.<sup>299</sup>



# FEDERATED STATES OF MICRONESIA

## Appendices

Disaster Management Reference Handbook | November 2016

# Appendices

## Department of Defense DMHA Engagements FY 2010-2016

**August 2016-Oceania PR DREE (Pacific Resilience Disaster Response Exercise and Exchange)-** The DREE, is a civil-military disaster preparedness and response initiative featuring table-top and field training exercises focused on national readiness to all hazard situations in the Oceania region and provides a framework for civil and military authorities to present best practices, engage in collaborative dialogue, exercise plans and procedures, and enhance response readiness. The 2016 Oceania PR DREE is a civil-military disaster preparedness and response initiative between the Governments of FSM, Vanuatu, Australia, New Zealand, Papua New Guinea, Fiji, Solomon Islands, Tonga, New Caledonia, Cook Islands, RMI, Kiribati, Niue, Palau, Samoa, and the U.S. This exercise is part of a continued annual engagement with these country partners. The Oceania Pacific Resilience

DREE is anchored on Humanitarian Assistance Disaster Relief operations, and the integration of all first responder communities. It practices how militaries support civilian authorities during disaster situations, the reception and dissemination of foreign humanitarian assistance and the strategic communication required to successfully execute emergency management plans. It does all of these things in full partnership between civilian and military institutions.<sup>300</sup>

**June 2015-Pacific Partnership-** The Military Sealift Command joint high speed vessel USNS Millinocket (JHSV 3), and embarked Task Force Forager, arrived in Pohnpei June 21, 2015. The crew provided medical, dental, veterinary, engineering and community relations engagements. Pacific Partnership is the largest annual multilateral humanitarian assistance and disaster relief preparedness mission conducted in the Indo-Asia-Pacific Region. Photo 11 depicts Chief Steelworker Bradley Vanhorn finishing concrete during a school renovation during the 2015 Pacific Partnership.<sup>301</sup>



Photo 11: Pacific Partnership 2015 Community Engagement

**July 2013-Humanitarian Mission to FSM-** A team of Tripler Army Medical Center Ear, Nose, and Throat physicians and Department of the Army Civilians recently completed a humanitarian mission to FSM where 407 outpatient visits and 234 hearing evaluations were provided to a population in need of care that was not affordable or accessible to those living in the region. The current mission was to provide aid to two of the four Micronesian states, Chuuk and Yap, at the request of FSM Department of Health and Social Affairs on behalf of the U.S. DOS.<sup>302</sup>

**February-March 2013-Multilateral Exercise-** The U.S. Coast Guard conducted a multilateral exercise with Palau and FSM. The purpose was to test shiprider agreements and ensure maritime security in the Exclusive Economic Zones of FSM, Palau, and the U.S.

**April 2013-Pohnpei Hospital Renovation-** The U.S. Army's 6th Engineer Battalion completed its Humanitarian Assistance – Federated States of Micronesia renovation project at the Pohnpei State Hospital. The team, consisting of 22 soldiers deployed from Fort Richardson, Alaska, in November 2012. On April 10, 2013 they completed the \$1.9 million renovation project \$200,000 under budget and three weeks early. The money for the project came from U.S. Department of Interior Compact funds.<sup>303</sup> Previously in April 2011, Army Engineers conducted an assessment of repairs needed to the Micronesian state hospital. U.S. Army Alaska, which received the mission from U.S. Pacific Command, directed the 6th Engineer Battalion to conduct a reconnaissance mission of the Pohnpei hospital. Upon receiving official orders in January, the 6th Engineer Battalion mobilized a reconnaissance team to deploy to Pohnpei. The purpose of the assessment was to make an initial determination of the technical requirements for an expected follow-on mission to conduct repairs of the hospital's roof and ceiling system. The seven Soldiers formed the nucleus of a larger reconnaissance team that included two Army officers from U.S. Pacific Command and U.S. Army Pacific headquarters, one U.S. Navy Seabee, and a civilian structural engineer from the U.S. Army Corps of Engineers.<sup>304</sup>

**July 2011-Pacific Partnership 2011-** On July 11, 2011, in support of the Pacific Partnership 2011 FSM program, USAID held a Humanitarian Assistance/Disaster Response workshop in Pohnpei, enabling U.S. and FSM disaster response specialists to review plans for weather warnings, disaster response activities, and emergency declarations. The exercise allowed participants to identify areas for improvement in FSM national and Pohnpei State disaster management plans, as well as the USG Operational Blueprint.<sup>305</sup>

**October 18-19, 2010-JTF-HD FSM Disaster Mitigation & Relief Tabletop Exercise (Palikir, Pohnpei)-** Joint Task Force Homeland Defense (JTF-HD), FSM, National and State Officials, USAID, and FEMA combined to participate in an intensive tabletop exercise in order to review the Operational Blueprint established by the U.S. Department of Homeland Security and USAID. The blueprint outlines the process and procedure provided by the U.S. to FSM for requesting and receiving U.S. disaster response/relief, should any type of disaster occur in any of the four FSM states. The exercise created a hypothetical typhoon scenario aimed at testing preparedness, response and reconstruction. The scenario included damage and/or destruction of up to 90% of private residences and extensive damage to public infrastructure inflicted by a Category 3 typhoon. The exercise offered participants an opportunity to analyze, plan and coordinate response efforts in order to minimize the risk to communities. It also helped them to assess their state of readiness, discuss coordination mechanisms and identify gaps to be addressed prior to the imminent typhoon season. Participants were tasked with forming four separate groups to work through three proposed modules: typhoon preparedness, typhoon impact and response, and typhoon post-impact reconstruction. The teams worked through each module using potential real life examples of the typhoon approaching FSM, resulting in the ensuing damage. The tabletop exercise allowed all parties to analyze, plan and coordinate the actions they should take before, during and after a disaster event to minimize as much as possible risks for FSM residents.<sup>306</sup>

## Force Protection/Pre-Deployment Information

### Passport/Visa

You will need a U.S. passport valid for at least 180 days from the time of entry, a completed FSM Immigration Arrival and Departure Record (FSM Form 5004), and a completed FSM Customs Form in order to enter FSM. Your air carrier will distribute FSM Immigration Arrival and Departure Record and Customs Form before you arrive into FSM. Under the Compact, FSM citizens may enter the U.S. as non-immigrants and U.S. citizens may enter FSM to live, work or study indefinitely without visas or non-citizen registration requirements. There is no limit to the length of time U.S. citizens can remain in FSM. All four states have a US\$20 departure fee that you must pay when you leave each island. Ensure you have cash available as credit cards are not accepted and ATM machines are not available at any of the airports.<sup>307</sup> A health certificate may be required if the traveler is arriving from an area experiencing an epidemic.<sup>308</sup>

### Safety and Security

Visitors to FSM should always maintain a high level of security, be alert to any unusual activity around your home or business, and report any suspicious incidents to local police authorities. In the state of Yap, divers and travelers should be aware that there are approximately a dozen World War II era aerial bombs in shallow depths located in the adjacent channels of Yap harbor. Please exercise caution, when traveling or diving in the region, particularly in the waters surrounding Yap harbor and the adjacent channels. Crime is higher in Chuuk than in the other states; you should stay off the streets after dark on Weno (the main island). On occasion, foreigners have been subject to, and possibly singled out for, theft and verbal and physical abuse. Alcohol related attacks as well as alcohol driving accidents are a concern during weekend night hours. Dress conservatively, as it is considered impolite for females to wear clothing that exposes anything above the knee. Modern Western swimwear may be considered immodest by local standards, and people wearing such clothing outside of hotels that cater to tourists could be harassed. Additionally, women should travel in groups and walk in well-lit areas.<sup>309</sup>

### Transportation and Road Conditions

Driving is on the right-hand side of the road, as in the U.S. However, unlike most cars in the U.S., the majority of vehicles in FSM have the driver's seat situated on the right side. Traffic, particularly in the state capitals, is increasing. Congestion may be a problem at the beginning and end of the workday. Most roads are narrow and without sidewalks, creating a hazard for both drivers and pedestrians. Many roads are in poor condition, with potholes and little or no shoulder.

Road conditions can worsen after heavy rains; coral surfaces are particularly likely to be slippery. There is no formal training in road safety, so many drivers are unaware of road safety rules. Drivers' skills vary; drivers often make turns or stop to pick up pedestrians without warning. Roads outside the towns are often unpaved and are used by pedestrians, children playing, animals, and drivers. Streetlights are rare. Taxis are available in state capitals, but visitors are advised to be careful, since some taxi drivers are reckless. Drunk drivers pose serious hazards, particularly on weekend evenings and holidays.

### Currency Information

The unit of currency is the U.S. dollar.<sup>310</sup>

### Emergency Contact Information

#### Emergency Numbers

- Local police: 320-2221 for Pohnpei and 911 on all other islands.
- The numbers for fire assistance are 330-2222 (Chuuk), 370-3333 (Kosrae), 320-2223 (Pohnpei), and 350-3333 (Yap).

For U.S. Citizens, contact the U.S. Embassy in Kolonia:

U.S. Embassy Kolonia  
1286 U.S. Embassy Place, Pohnpei  
(near the movie theater)  
Kolonia, Federated States of Micronesia  
Telephone: +(691) 320-2187  
Emergency After-Hours Telephone: +(691) 920-2369  
Fax +(691) 320 2186  
Email: USEmbassy@mail.fm

The capacity of local police and fire departments throughout FSM is extremely limited. There is often a significant delay for police and firefighters to respond to calls, and



they may not be able to respond at all. The capacity to investigate crimes is extremely limited and victims may wait months for an arrest. Court-appointed attorneys, as well as judges presiding over cases, may not have legal training comparable to that found in the U.S.<sup>311</sup>

## Travel Health Information

Local mosquito transmission of Zika virus has been reported in Micronesia. Local mosquito transmission means that mosquitoes in the area are infected with Zika virus and are spreading it to people. Zika outbreaks have been reported in the FSM. Because of the risk of birth defects in babies born to women who were infected with Zika while pregnant, women who are pregnant should not travel to Micronesia.<sup>312</sup>

Before visiting FSM, the U.S. Center for Disease Control and Prevention (CDC) advises ALL travelers to get the following vaccines:<sup>313</sup>

- *Routine vaccines:* Make sure you are up-to-date on routine vaccines before every trip. These vaccines include the measles-mumps-rubella vaccine, diphtheria-tetanus-pertussis vaccine, varicella (chickenpox) vaccine, polio vaccine, and your yearly flu shot.

The CDC advises MOST travelers to get the following vaccines:

- *Hepatitis A:* CDC recommends this vaccine because you can get hepatitis A through contaminated food or water in the FSM, regardless of where you are eating or staying.
- *Typhoid:* You can get typhoid through contaminated food or water in the FSM. The CDC recommends this vaccine for most travelers, especially if you are staying with friends or relatives, visiting smaller cities or rural areas, or if you are an adventurous eater.

The CDC advises SOME travelers (depending on a longer stay, what you will be doing in the FSM, and if you are traveling from a country other than the U.S.) to get the following vaccines:

- *Hepatitis B:* You can get hepatitis B through sexual contact, contaminated needles, and blood products, so the CDC recommends this vaccine if you might have sex with a new partner, get a tattoo or piercing, or have any medical procedures.

Unclean food and water can cause travelers' diarrhea and other diseases. Reduce your risk by sticking to safe food and water habits:

### Eat

- Food that is cooked and served hot
- Hard-cooked eggs
- Fruits and vegetables you have washed in clean water or peeled yourself
- Pasteurized dairy products

### Don't Eat

- Food served at room temperature
- Food from street vendors
- Raw or soft-cooked (runny) eggs
- Raw or undercooked (rare) meat or fish
- Unwashed or unpeeled raw fruits and vegetables
- Unpasteurized dairy products
- "Bushmeat" (monkeys, bats, or other wild game)

### Drink

- Bottled water that is sealed
- Water that has been disinfected
- Ice made with bottled or disinfected water
- Carbonated drinks
- Hot coffee or tea
- Pasteurized milk

### Don't Drink

- Tap or well water
- Ice made with tap or well water
- Drinks made with tap or well water (such as reconstituted juice)
- Unpasteurized milk

Healthcare facilities in FSM consist of state-run hospitals on each of the four major islands and a few scattered clinics. These facilities lack advanced supplies and medicines, and the quality of healthcare is low. Doctors and hospitals expect immediate cash payment for health services. Medical evacuation for non-ambulatory patients is not immediately available and can be expensive. Scuba divers should note that although there are decompression chambers in Yap, Chuuk, and Pohnpei, they may not be in working order, and local staff may not have adequate experience in treating diving injuries.

## Hyogo Framework for Action Country Progress Report

The Hyogo Framework for Action (HFA) was adopted as a guideline to reduce vulnerabilities to natural hazards. The HFA assists participating countries to become more resilient and to better manage the hazards that threaten their development. The levels of progress of the 2011-2013 results of the Interim HFA for FSM are represented in the graph (Figure 8) and Table 4. Future Outlook areas are also discussed in Table 5.<sup>314</sup> Although the ‘Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters’ expired in 2015, this is the most recent information that was provided. The United Nations General Assembly

Level of Progress\* Achieved for HFA Priorities

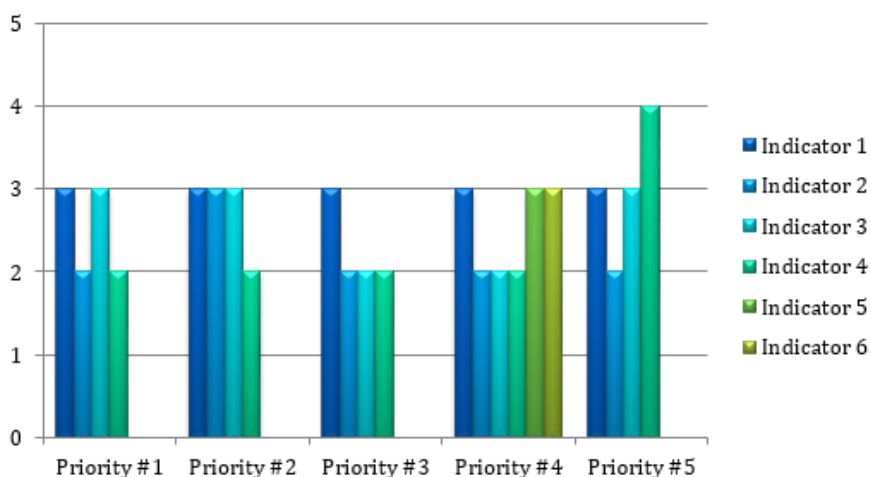


Figure 8: Hyogo Framework for Action Level of Progress

Resolution 66/199, requested United Nations International Strategy for DRR (UNISDR) to facilitate the development of a post-2015 framework for DRR.

Priority for Action #1: Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.		
Core Indicator*	Indicator Description	Level of Progress Achieved
1	National policy and legal framework for DRR exists with decentralized responsibilities and capacities at all levels.	3
2	Dedicated and adequate resources are available to implement DRR plans and activities at all administrative levels.	2
3	Community Participation and decentralization is ensured through the delegation of authority and resources to local levels.	3
4	A national multi sectoral platform for DRR is functioning.	2
Priority #2: Identify, assess and monitor disaster risks and enhance early warning		
Core Indicator*	Indicator Description	Level of Progress Achieved
1	National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.	3
2	Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities.	2
3	Early warning systems are in place for all major hazards, with outreach to communities.	3
4	National and local risk assessments take account of regional / trans-boundary risks, with a view to regional cooperation on risk reduction.	2

**Priority #3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels**

Core Indicator*	Indicator Description	Level of Progress Achieved
1	Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems, etc.).	3
2	School curricula, education material and relevant trainings include DRR and recovery concepts and practices.	2
3	Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.	2
4	Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.	2

**Priority #4: Reduce the underlying risk factors**

Core Indicator*	Indicator Description	Level of Progress Achieved
1	DRR is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.	3
2	Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.	2
3	Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities.	2
4	Planning and management of human settlements incorporate DRR elements, including enforcement of building codes.	2
5	DRR measures are integrated into post disaster recovery and rehabilitation processes.	3
6	Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.	3

**Priority #5: Strengthen disaster preparedness for effective response at all levels**

Core Indicator*	Indicator Description	Level of Progress Achieved
1	Strong policy, technical and institutional capacities and mechanisms for DRM, with a DRR perspective are in place.	3
2	Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programs.	2
3	Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.	3
4	Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews.	4

Table Notes:

\*Level of Progress:

- 1 – Minor progress with few signs of forward action in plans or policy
- 2 – Some progress, but without systematic policy and/ or institutional commitment
- 3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial
- 4 – Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities
- 5 – Comprehensive achievement with sustained commitment and capacities at all levels

Table 4: Hyogo Framework for Action Country Progress Report Priorities and Progress Achieved

<b>Future Outlook Area 1:</b> The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.	
Challenges:	<ul style="list-style-type: none"> <li>-Planning department and sector agencies do not see DRR as a priority, or do not understand the linkages;</li> <li>-Absence of DRR policy, national legislation, or action plan;</li> <li>-Absence of a multi-stakeholder forum that includes strong representation from civil society; and</li> <li>-Weak coordination and dissemination of DRM information.</li> </ul>
Future Outlook Priorities:	A National DRM Policy is developed to complement the National CC Policy and DRM is being effectively implemented through the development of supporting legislation, improved coordination and the integration of DRR into sectoral, agency and state development plans.
<b>Future Outlook Area 2:</b> The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.	
Challenges:	<ul style="list-style-type: none"> <li>-Limited technical capacity in DRM planning;</li> <li>-Weak capacity at sub-national levels (staffing, resources) – State and Community levels;</li> <li>-Limited use of available technical agencies; and</li> <li>-Difficulty of accessing remote communities on outer islands.</li> </ul>
Future Outlook Priorities:	Increased capacity for effective DRR planning through training and capacity building of relevant institutions such as the National DM Task Force, OEEM staff, and State level players, as well as development of appropriate tools and systems for DRR, and improved use of existing technical and educational institutions, such as College of Micronesia.
<b>Future Outlook Area 3:</b> The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programs in the reconstruction of affected communities.	
Challenges:	<ul style="list-style-type: none"> <li>-Limited national capacity for conducting post-disaster damage assessments and analysis and integration of lessons learned.</li> <li>-Strong reliance on international partners; and</li> <li>-Logistical constraints.</li> </ul>
Future Outlook Priorities:	State and community level programs and capacities for emergency preparedness, response and recovery are strengthened including improved coordination between different levels of government.

Table 5: Hyogo Framework for Action Country Progress Report Future Outlook Areas

# Micronesia Government Ministries, Offices and Committees

## Government

### *Executive Branch*

The President is Peter M. Christian and the Vice President is Yosiwo P. George, both elected on May 12, 2015.<sup>315</sup> The president is both chief of state and head of government.<sup>316</sup> This branch includes the following departments and offices:

Office of the President  
PS53, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2228  
Fax: (691) 320-2785

Department of Foreign Affairs  
Secretary: Hon. Lorin S. Robert  
Deputy Secretary: Hon. Samson Pretrick  
PS123, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2641/2613  
Fax: (691) 320-2933  
Email: [foreignaffairs@mail.fm](mailto:foreignaffairs@mail.fm)

Department of Resource & Development  
Secretary: Hon. Marion Henry  
PS12, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2646  
Fax: (691) 320-5854  
Email: [fsmrd@dea.fm](mailto:fsmrd@dea.fm)  
Division of Statistics: [fsmnso@mail.fm](mailto:fsmnso@mail.fm)

Department of Transportation,  
Communication, and Infrastructure  
Secretary: Hon. Lukner Weilbacher  
PS2, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2865  
Fax: (691) 320-5853

Department of Finance and Administration  
Madam Secretary: Hon. Sihna Lawrence  
PS158, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2640  
Fax: (691) 320-2380

Department of Health and Human Services  
Acting Secretary: Hon. Arty Nena  
PS70, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2872  
Fax: (691) 320-5263

Department of Justice  
Secretary: Hon. Joses Gallen  
PS105, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2644/2608  
Fax: (691) 320-2234

Department of Education  
Secretary: Hon. Kalwin Kephass  
87 Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2609  
Fax: (691) 320-5500

Office of Public Defender  
Public Defender: Hon. Lorrie Johnson-Asher  
PS174 Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2648  
Fax: (691) 320-5775

Office of National Archives, Culture, and  
Historic Preservations  
Director: Hon. Rufino Mauricio, PhD  
PS173, Palikir, Pohnpei State, FM 96941  
Phone: (691) 320-2343/6922  
Fax: (691) 320-5632

### *Legislative Branch*

The legislative branch is a Congress made up of 14 seats; 10 members directly elected in single-seat constituencies by simple majority vote to serve 2-year terms and 4 directly elected from each of the 4 states by proportional representation vote to serve 4-year terms.<sup>317</sup>

### *Judicial Branch*

The highest court is FSM Supreme Court (consisting of the chief justice and not more than five associate justices and organized into appellate and criminal divisions). Justices are appointed by the president of FSM with the approval of two-thirds of Congress and justices are appointed for life. The highest state-level courts are Chuuk Supreme Court, Korsae State Court, Pohnpei State Court, and Yap State Court.

## Participation in International Organizations

FSM and the U.S. belong to a number of the same international organizations, including the United Nations, International Monetary Fund, and World Bank. FSM was admitted to the United Nations on 17 September 1991. Additionally outside the region, FSM is a member or participant of the ACP (Cotonou Agreement), the Alliance of Small Island States, the ADB, ESCAP, FAO, the G-77, the International Bank for Reconstruction and Development, the International Civil Aviation Organization, the International Red Cross and Red Crescent Movement, the International Development Association, the International Finance Corporation, the International Olympic Committee, the ITU, the NAM and the World Meteorological Organization.

FSM is a full member of the Pacific Islands Forum, the Pacific Regional Environment Programme and the Secretariat of the Pacific Community. FSM also is a member of the Western and Central Pacific Fisheries Commission, the headquarters of which are located in FSM. In addition, FSM is one of the eight signatories of the Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest that collectively controls 25-30% of the world's tuna supply and approximately 60% of the western and central Pacific tuna supply.<sup>318</sup>

### *Secretariat of the Pacific Community (SPC)*

SPC Headquarters

Address:

BP D5

98848 Noumea

New Caledonia

Email: [spc@spc.int](mailto:spc@spc.int)

Phone: +687 26 20 00

Fax: +687 26 38 18

SPC is an international organization that works across a number of areas, including but not limited to public health, agriculture, forestry, human rights, climate change and disaster management, to help Pacific Island countries to achieve sustainable development. SPC has 26 members including 22 Pacific Island countries and territories, plus 4 founding countries: USA, Australia, France and New Zealand. SPC works closely with its members in determining what support is needed for the development of

national policies and plans. Development goals of SPC community members are discussed in Figure 9.<sup>319</sup>

FSM, like many small island countries, has limited resources to adapt to the serious impacts of climate change. As impacts become more pronounced and adaptation requirements continue to extend beyond national resources, external funding will be even more critical to addressing such requirements.

Global funding for CCA has increased over the past few years and yet these resources continue to elude small countries like FSM. It is the aim of a partnership between FSM OEEM and the Secretariat of the Pacific Community (SPC) under an European Union-funded project to build capacity of stakeholders in FSM to better access climate adaptation funding.

National, State Government officials and NGO representatives gathered in Pohnpei from February 3-6, 2014 to participate in the first of a series of project proposal writing workshops being held in each of the four States of FSM. The workshops' objectives was to increase participants' ability to secure project funding and raise awareness on climate change issues in the local communities as well as improve their skills in project proposal identification, writing and project management. According to Andrew Yatilman, Director of OEEM, FSM lacks skills in writing proposals. These workshops are part of the Global Climate Change Alliance: Pacific Small Island States Project that is being implemented by the Government of FSM and eight other Pacific Island Countries with the assistance of SPC and funded by the European Union. The workshops are introducing the logical framework approach to project proposal development and management. This project methodology is commonly used and encouraged by development partners.<sup>320</sup>

### *Pacific Islands Forum (PIF) Secretariat*

PIF is an international organization that aims to stimulate economic growth and enhance political governance and security for the region, through the provision of policy advice; and to strengthen regional cooperation and integration through coordinating, monitoring and evaluating implementation of Leaders' decisions. The organization's mandate is set by decisions made at annual meetings of Leaders from the 16 Pacific Island Forum member countries, ministerial meetings convened by the Forum Secretariat, and decisions made under the Framework for Pacific

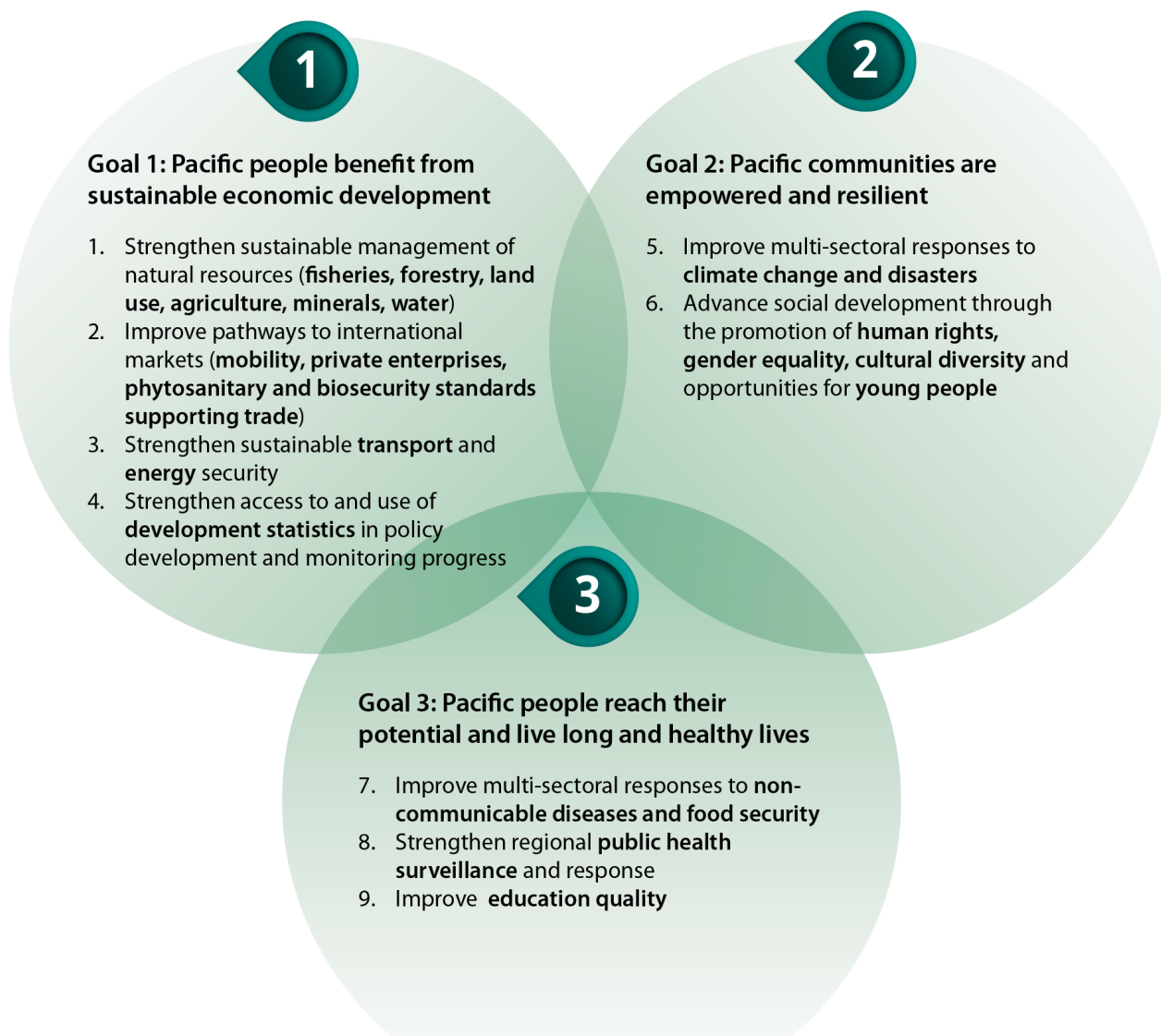


Figure 9: Secretariat of the Pacific Community Development Goals

### Regionalism.

PIF is also responsible for implementing the Forum Compact on Strengthening Development Coordination, which was agreed to by Pacific Island Leaders in 2009. The Forum Compact encourages Forum Island Countries to systematically examine and improve how national plans and budgets, public financial management systems, development partner coordination, monitoring and evaluation of results, and engagement between governments, parliamentarians, private sector and non-state actors, contribute to overall national sustainable development efforts.

An emerging opportunity to improve intergovernmental coordination and cooperation is the Framework for Pacific Regionalism

that was agreed by Pacific Island Leaders in 2014 as a replacement for the 2005 Pacific Plan for Strengthening Regional Cooperation and Integration. The Framework sets out the following:<sup>321</sup>

- Pacific Vision, for a region of peace, harmony, security, social inclusion, and prosperity, so that all Pacific people can lead free, healthy, and productive lives;
- Regional values, which include our oceans, our culture, good governance, peaceful societies, inclusivity and equality, and durable partnerships; and
- Strategic objectives for Pacific regionalism, which cover sustainable development, inclusive and equitable economic growth, strengthened governance and security.

Regional collective action	To achieve:	By:	Requiring:
Coordination	Open consultation and access to information; and coordinated application of shared, best-practice norms and standards.	Establishing and managing agreed processes that facilitate regional dialogue and access to (and use of) information.	Voluntary consultations and agreements; possible resource sharing.
Cooperation	An effective and strengthened voice in protecting and sustainably harnessing the region's physical, social and cultural assets for the benefit of all.	Developing and committing to coordinated regional or sub-regional policies and strategies.	Voluntary agreement to modes of regional cooperation; services are mainly funded and delivered nationally.
Collaboration	Achievement of economies of scale and equitable benefits that cannot be achieved nationally.	Delivering regional public goods and pooled services.	Voluntary agreement to modes of regional collaboration; national governments are freed from daily management of these priorities.
Harmonization	Achievement of shared institutional and/or legal objectives.	Entering into specific regional or sub-regional commitments to common policies, regulations, standards and/or processes.	Legally binding arrangements, including commitment to national resource allocation; each country free to amend their internal laws / requirements to meet the shared regional objectives.
Economic integration	Greater economic prosperity founded on regional economic integration and sustainability and the equitable distribution of benefits and costs.	Lowering physical and technical market barriers to enable freer movement of people and goods within and among countries.	Legally binding arrangements, including commitment to national resource allocation; each country commits to amending their internal laws / requirements to meet the shared regional objectives.
Administrative / legal / institutional integration	A secure and well governed Pacific region pledged to upholding regional values.	Agreeing to common rules, standards and institutions to foster and sustain integration.	Legally binding arrangements, including commitment to national resource allocation and to operating within regionally mandated requirements.

Table 6: Pacific Island Forum Strategic Objectives

- For each of the strategic objectives, Pacific countries will adopt forms of regionalism, drawing from the collective actions demonstrated in Table 6.<sup>322</sup>

**Pacific Risk Management `Ohana (PRiMO)**

The NOAA Pacific Services Center in 2003, 2004, convened the Roundtable of Federal Hazard Mitigation Partners in the Pacific Islands. These meetings brought together representatives from local, national, and regional agencies, institutions, and organizations to explore opportunities to enhance communication, coordination, and collaboration. Based on a mutual recognition of the benefits of collective action, the Pacific Risk Management `Ohana (PRiMO) was formed.



## Country Profile

*The information in the Country Profile section is sourced directly from the CIA World Factbook.<sup>323</sup>*

The FSM are a widely scattered archipelago in the western Pacific Ocean; they became part of a UN Trust Territory under U.S. administration following World War II. The eastern four island groups adopted a constitution in 1979 and chose to become the FSM. (The westernmost island group became Palau.) Independence came in 1986 under a Compact of Free Association with the U.S., which was amended and renewed in 2004. Present concerns include large-scale unemployment, overfishing, overdependence on U.S. foreign aid, and state perception of inequitable allocation of U.S. aid.

**Location:** Oceania, island group in the North Pacific Ocean, about three-quarters of the way from Hawaii to Indonesia

**Geographic coordinates:** 6 55 N, 158 15 E

**Map references:** Oceania

**Area: total:** 702 sq km (land: 702 sq km; water: 0 sq km -fresh water only)

note: includes Pohnpei (Ponape), Chuuk (Truk) Islands, Yap Islands, and Kosrae (Kosaie); composed of four major island groups totaling 607 islands

country comparison to the world: 191

**Area - comparative:** four times the size of Washington, DC (land area only)

**Land boundaries:** 0 km

**Coastline:** 6,112 km

**Maritime claims:** territorial sea: 12 nm; exclusive economic zone: 200 nm

Climate: tropical; heavy year-round rainfall, especially in the eastern islands; located on southern edge of the typhoon belt with occasionally severe damage

**Terrain:** islands vary geologically from high mountainous islands to low, coral atolls; volcanic outcroppings on Pohnpei, Kosrae, and Chuuk

**Elevation:** mean elevation: NA  
elevation extremes: lowest point: Pacific Ocean 0 m; highest point: Dolohmwar (Totolom) 791 m

**Natural resources:** timber, marine products, deep-seabed minerals, phosphate

### Land use:

Agricultural land: 25.5%  
Arable land 2.3%; permanent crops 19.7%; permanent pasture 3.5%  
Forest: 74.5%  
Other: 0% (2011 est.)

**Irrigated land:** 0 sq km NA (2012)

**Natural hazards:** typhoons (June to December)

**Environment - current issues:** overfishing, climate change, pollution

### Environment - international agreements:

**party to:** Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Hazardous Wastes, Law of the Sea, Ozone Layer Protection signed, but not ratified: none of the selected agreements

**Population:** 104,719 (July 2016 est.)

**Nationality:** Micronesian(s)(noun)  
Micronesian; Chuukese, Kosrae(s), Pohnpeian(s), Yapese (adjective)

**Ethnic groups:** Chuukese/Mortlockese 49.3%, Pohnpeian 29.8%, Kosraean 6.3%, Yapese 5.7%, Yap outer islanders 5.1%, Polynesian 1.6%, Asian 1.4%, other 0.8% (2010 est.)

**Languages:** English (official and common language), Chuukese, Kosraean, Pohnpeian, Yapese, Ulithian, Woleaian, Nukuoro, Kapingamarangi

**Religions:** Roman Catholic 54.7%, Protestant 41.1% (includes Congregational 38.5%, Baptist 1.1%, Seventh Day Adventist 0.8%, Assembly of God 0.7%), Mormon 1.5%, other 1.9%, none 0.7%, unspecified 0.1% (2010 est.)

Country comparison to the world: 194

## Age structure:

0-14 years: 31.34% (male 16,761/female 16,215)  
 15-24 years: 20% (male 10,576/female 10,469)  
 25-54 years: 38.41% (male 19,583/female 20,827)  
 55-64 years: 6.72% (male 3,494/female 3,580)  
 65 years and over: 3.53% (male 1,660/female 2,051) (2015 est.)

## Dependency ratios:

total dependency ratio: 62.4%  
 youth dependency ratio: 55.3%  
 elderly dependency ratio: 7.1%  
 potential support ratio: 14.1% (2015 est.)

## Median age:

total: 24.7 years  
 male: 24 years  
 female: 25.3 years (2016 est.)  
 country comparison to the world: 158

## Population growth rate:

-0.46% (2015 est.)  
 country comparison to the world: 223

## Birth rate:

20.54 births/1,000 population (2015 est.)  
 country comparison to the world: 81

## Death rate:

4.23 deaths/1,000 population (2015 est.)  
 country comparison to the world: 204

## Net migration rate:

-20.93 migrant(s)/1,000 population (2015 est.)

## Urbanization:

urban population: 22.4% of total population (2015)  
 rate of urbanization: 0.27% annual rate of change (2010-15 est.)

## Major urban areas - population:

PALIKIR (capital) 7,000 (2014)

## Sex ratio:

at birth: 1.05 male(s)/female  
 0-14 years: 1.03 male(s)/female  
 15-24 years: 1.01 male(s)/female  
 25-54 years: 0.94 male(s)/female  
 55-64 years: 0.98 male(s)/female  
 65 years and over: 0.81 male(s)/female  
 total population: 0.98 male(s)/female (2015 est.)

## Maternal mortality rate:

100 deaths/100,000 live births (2015 est.)  
 country comparison to the world: 71

## Infant mortality rate:

total: 21.18 deaths/1,000 live births  
 male: 23.46 deaths/1,000 live births  
 female: 18.79 deaths/1,000 live births (2015 est.)  
 country comparison to the world: 82

## Life expectancy at birth:

total population: 72.62 years  
 male: 70.59 years  
 female: 74.75 years (2015 est.)  
 country comparison to the world: 137

## Total fertility rate:

2.49 children born/woman (2015 est.)  
 country comparison to the world: 77

## Health expenditures:

13.7% of GDP (2014)  
 Country comparison to the world: 6

## Physicians density:

0.18 physicians/1,000 population (2009)

## Hospital bed density:

3.2 beds/1,000 population (2009)

## Drinking water source:

improved:  
 urban: 94.8% of population  
 rural: 87.4% of population  
 total: 89% of population  
 unimproved:  
 urban: 5.2% of population  
 rural: 12.6% of population  
 total: 11% of population (2015 est.)

## Sanitation facility access:

improved:  
 urban: 85.1% of population  
 rural: 49% of population  
 total: 57.1% of population  
 unimproved:  
 urban: 14.9% of population  
 rural: 51% of population  
 total: 42.9% of population (2015 est.)

## HIV/AIDS -

Adult prevalence rate: NA;  
 People living with HIV/AIDS: NA;  
 HIV/AIDS - deaths: NA

**Major infectious diseases:** active local transmission of Zika virus by Aedes species mosquitoes has been identified in this country (as of August 2016); it poses an important risk (a large number of cases possible) among U.S. citizens if bitten by an infective mosquito; other less common ways to get Zika are through sex, via blood transfusion, or during pregnancy, in which the pregnant woman passes Zika virus to her fetus (2016)

**Obesity - adult prevalence rate:**  
33.2% (2014)  
Country comparison to the world: 12

**Education expenditures:** NA

**Former Name:** Trust Territory of the Pacific Islands, Ponape, Truk, and Yap Districts

**Abbreviation:** FSM

**Etymology:** the term “Micronesia” is a 19th-century construct of two Greek words, “micro” (small) and “nesoi” (islands), and refers to thousands of small islands in the western Pacific Ocean

**Government type:**  
Federal republic in free association with the U.S.

**Capital name:** Palikir

**Geographic coordinates:** 6 55 N, 158 09 E

**Time difference:** UTC+11 (16 hours ahead of Washington, DC, during Standard Time)

**Administrative divisions:**  
4 states; Chuuk (Truk), Kosrae (Kosaie), Pohnpei (Ponape), Yap

**Independence:** 3 November 1986 (from the U.S.-administered UN trusteeship)

**National holiday:** Constitution Day, 10 May (1979); Independence Day, 3 November (1986)

**Constitution:** drafted June 1975, ratified 1 October 1978, entered into force 10 May 1979; amended 1990; note - in 2001, all 26 amendments proposed by FSM constitutional convention were defeated in a national referendum (2016)

**Legal system:** mixed legal system of common and customary law

**International law organization participation:**  
Has not submitted an ICJ jurisdiction declaration; non-party state to the ICCt

**Citizenship:**  
Citizenship by birth: no  
Citizenship by descent only: at least one parent must be a citizen of FSM  
Dual citizenship recognized: no  
Residency requirement for naturalization: 5 years

**Suffrage:**  
18 years of age; universal

**Executive branch:**  
Chief of state: President Peter M. CHRISTIAN (since 12 May 2015); Vice President Yosiwo P. GEORGE (since 12 May 2015); note - the president is both chief of state and head of government  
Head of government: President Peter M. CHRISTIAN (since 12 May 2015); Vice President Yosiwo P. GEORGE (since 12 May 2015)  
Cabinet: Cabinet includes the vice president and the heads of the 8 executive departments  
Elections/appointments: president and vice president indirectly elected by Congress from among the 4 ‘at large’ Senators for a 4-year term (eligible for a second term);  
Election results: Peter M. CHRISTIAN elected president by Congress; Yosiwo P. GEORGE elected vice president

**Legislative branch:**  
Description: unicameral Congress (14 seats; 10 members directly elected in single-seat constituencies by simple majority vote to serve 2-year terms and 4 directly elected from each of the 4 states by proportional representation vote to serve 4-year terms)

**Judicial branch:**  
Highest court(s): FSM Supreme Court (consists of the chief justice and not more than 5 associate justices and organized into appellate and criminal divisions)  
Judge selection and term of office: justices appointed by the president of the FSM with the approval of two-thirds of Congress; justices appointed for life  
Subordinate courts: the highest state-level courts are Chuuk Supreme Court, Kosrae State Court,

Pohnpei State Court, and Yap State Court.  
Political parties and leaders: no formal parties

**Political pressure groups and leaders:** NA

**International organization participation:**

ACP, ADB, AOSIS, FAO, G-77, IBRD, ICAO, ICRM, IDA, IFC, IFRC, IMF, IOC, IOM, IPU, ITSO, ITU, MIGA, OPCW, PIF, Sparteca, SPC, UN, UNCTAD, UNESCO, WHO, WMO

**Diplomatic representation in the U.S.:**

Chief of mission: Ambassador (vacant); Charge d'Affaires Ad interim James A. NAICH  
Chancery: 1725 N Street NW, Washington, DC 20036

Telephone: [1] (202) 223-4383

FAX: [1] (202) 223-4391

Consulate(s) general: Honolulu, Tamuning (Guam)

**Diplomatic representation from the U.S.:**

Chief of mission: Ambassador Robert Riley  
Embassy: 101 Upper Pics Road, Kolonia  
Mailing address: P. O. Box 1286, Kolonia, Pohnpei, 96941; U.S. Embassy in Micronesia, 4120 Kolonia Place, Washington, D.C. 20521-4120

Telephone: [691] 320-2187

FAX: [691] 320-2186

**Flag description:**

Light blue with four white five-pointed stars centered; the stars are arranged in a diamond pattern; blue symbolizes the Pacific Ocean, the stars represent the four island groups of Chuuk, Kosrae, Pohnpei, and Yap

**National symbol(s):**

Four, five-pointed, white stars on a light blue field; national colors: light blue, white

**National anthem:**

Name: "Patriots of Micronesia"

Lyrics/music: unknown

**Economy - overview:**

Economic activity consists largely of subsistence farming and fishing, and government, which employs two-thirds of the adult working population and receives funding largely - 58% in 2013 - from Compact of Free Association assistance provided by the U.S. The islands have few commercially valuable mineral deposits. The potential for tourism is limited by isolation,

lack of adequate facilities, and limited internal air and water transportation. Under the terms of the original Compact, the U.S. provided \$1.3 billion in grants and aid from 1986 to 2001. The U.S. and the FSM negotiated a second (amended) Compact agreement in 2002-03 that took effect in 2004. The amended Compact runs for a 20-year period to 2023, during which the U.S. will provide roughly \$2.1 billion to FSM. The amended Compact also develops a Trust Fund for FSM that will provide a comparable income stream beyond 2024 when Compact grants end. The country's medium-term economic outlook appears fragile because of dependence on U.S. assistance and lackluster performance of its small and stagnant private sector.

**GDP (purchasing power parity):**

\$306 million (2015 est.)

\$306.5 million (2014 est.)

\$317.3 million (2013 est.)

note: data are in 2013 U.S. dollars; GDP supplemented by grant aid, averaging about \$100 million annually

**GDP (official exchange rate):**

\$318 million (2015 est.)

**GDP - real growth rate:**

-0.2% (2015 est.)

-3.4% (2014 est.)

-3.6% (2013 est.)

**GDP - per capita (PPP):**

\$3,000 (2015 est.)

\$2,900 (2014 est.)

\$3,100 (2013 est.)

Note: data are in 2015 U.S. dollars

**GDP - composition, by end use:**

Household consumption: 83.5%

Government consumption: 41.8%

Investment in fixed assets: 24.3%

Investment in inventories: 0%

Exports of goods and services: 26.6%

Imports of goods and services: -76.2% (2013 est.)

**GDP - composition, by sector of origin:**

Agriculture: 26.3%

Industry: 18.9%

services: 54.8% (2013 est.)

**Agriculture - products:**

taro, yams, coconuts, bananas, cassava (manioc, tapioca), sakau (kava), Kosraen citrus, betel nuts, black pepper, fish, pigs, chickens

**Industries:**

Tourism, construction; specialized aquaculture, craft items (shell and wood)

**Industrial production growth rate:** NA**Labor force:** 37,920 (2010 est.)**Labor force - by occupation:**

agriculture: 0.9%

industry: 5.2%

services: 93.9%

note: two-thirds of the labor force are government employees (2013 est.)

**Unemployment rate:**

16.2% (2010 est.)

country comparison to the world: 157

**Population below poverty line:**

26.7% (2000 est.)

Household income or consumption by percentage share:

lowest 10%: NA%

highest 10%: NA%

**Distribution of family income - Gini index:**

61.1 (2013 est.)

country comparison to the world: 4

**Budget:**

revenues: \$213.8 million

expenditures: \$192.1 million (FY12/13 est.)

**Taxes and other revenues:**

69.6% of GDP (FY12/13 est.)

country comparison to the world: 5

**Budget surplus (+) or deficit (-):**

7.1% of GDP (FY12/13 est.)

country comparison to the world: 5

**Public debt:**

28% of GDP (2013)

27% of GDP (2012)

country comparison to the world: 146

**Fiscal year:**

1 October - 30 September

**Inflation rate (consumer prices):**

-1% (2015 est.)

0.6% (2014 est.)

country comparison to the world: 13

**Commercial bank prime lending rate:**

7.1% (2013 est.)

6.4% (2012 est.)

country comparison to the world: 119

**Stock of narrow money:**

\$196 million (31 December 2013 est.)

country comparison to the world: 182

**Stock of broad money:**

\$225.2 million (31 December 2013 est.)

country comparison to the world: 189

**Stock of domestic credit:**

\$56.98 million (2013 est.)

\$56.77 million (31 December 2011 est.)

country comparison to the world: 185

**Market value of publicly traded shares:** \$NA

Current account balance:

\$3 million (2015 est.)

\$22 million (2014 est.)

country comparison to the world: 52

**Exports:**

\$88.3 million (2013 est.)

\$95.7 million (2012 est.)

country comparison to the world: 196

Exports - commodities: fish, sakau (kava), betel nuts, black pepper

**Imports:**

\$258.5 million (2013 est.)

\$263.4 million (2012 est.)

country comparison to the world: 203

Imports - commodities: food, beverages, clothing, computers, household electronics, appliances, manufactured goods, automobiles, machinery and equipment, furniture, tools

**Reserves of foreign exchange and gold:**

\$75.06 million (31 December 2011 est.)

country comparison to the world: 167

**Debt - external:**

\$93.6 million (2013 est.)

\$93.5 million (2012 est.)

country comparison to the world: 195

**Stock of direct foreign investment - at home:**

\$15.8 million (2013 est.)  
 \$34.4 million (2012 est.)  
 country comparison to the world: 119

**Exchange rates:** U.S. dollar is used

**population without electricity:** 42,934

**electrification - total population:** 59 %

**electrification - urban areas:** 100 %

**electrification - rural areas:** 45 % (2012)

**Electricity - production:**

192 million kWh (2002)  
 country comparison to the world: 187

**Electricity - consumption:**

178.6 million kWh (2002)  
 country comparison to the world: 188

**Electricity - exports:**

0 kWh (2013 est.)  
 country comparison to the world: 138

**Electricity - imports:**

0 kWh (2013 est.)  
 country comparison to the world: 149

**Electricity - installed generating capacity:**

18,000 kW (2015 est.)  
 country comparison to the world: 204

**Electricity - from fossil fuels:**

96% of total installed capacity (2015 est.)  
 country comparison to the world: 65

**Electricity - from nuclear fuels:**

0% of total installed capacity (2015 est.)  
 country comparison to the world: 92

**Electricity - from hydroelectric plants:**

1% of total installed capacity (2013 est.)  
 country comparison to the world: 143

**Electricity - from other renewable sources:**

3% of total installed capacity (2013 est.)  
 country comparison to the world: 72

**Crude oil - production:**

0 bbl/day (2014)  
 country comparison to the world: 136

**Crude oil - exports:**

0 bbl/day (2014)  
 country comparison to the world: 125

**Crude oil - imports:**

0 bbl/day (2014)  
 country comparison to the world: 190

**Crude oil - proved reserves:**

0 bbl (1 January 2014)  
 country comparison to the world: 134

**Refined petroleum products - production:**

0 bbl/day (2014)  
 country comparison to the world: 182

**Refined petroleum products - exports:**

0 bbl/day  
 country comparison to the world: 181

**Natural gas - production:**

0 cu m (2014)  
 country comparison to the world: 187

**Natural gas - exports:**

2,014 cu m  
 country comparison to the world: 51

**Natural gas - proved reserves:**

0 cu m  
 country comparison to the world: 139

**Carbon dioxide emissions from consumption of energy:**

105 Mt (2010 est.)  
 country comparison to the world: 213

**Telephones - fixed lines:**

total subscriptions: 6,808  
 subscriptions per 100 inhabitants: 6 (July 2015 est.)  
 country comparison to the world: 204

**Telephones - mobile cellular:**

total: 31,400  
 subscriptions per 100 inhabitants: 30 (July 2013 est.)  
 country comparison to the world: 208

**Telephone system:**

general assessment: adequate system  
domestic: islands interconnected by shortwave radiotelephone (used mostly for government purposes), satellite (Intelsat) ground stations, and some coaxial and fiber-optic cable; mobile-cellular service available on the major islands  
international: country code - 691; satellite earth stations - 5 Intelsat (Pacific Ocean) (2015)

**Broadcast media:**

No TV broadcast stations; each state has a multi-channel cable service with TV transmissions carrying roughly 95% imported programming and 5% local programming; about a half-dozen radio stations (2009)

**Radio broadcast stations:**

AM 5, FM 1, shortwave 0 (2004)

**Television broadcast stations:**

3 (cable TV also available) (2004)

**Internet country code:** .fm**Internet hosts:** 4,668 (2012)

country comparison to the world: 147

**Internet users:**

total: 33,000

percent of population: 31.5% (July 2015 est.)

country comparison to the world: 196

**Airports:** 6 (2013)

country comparison to the world: 173

Airports - with paved runways: 6

1,524 to 2,437 m: 4

914 to 1,523 m: 2 (2013)

**Roadways:**

total: 388 km

paved: 184 km

unpaved: 204 km (2015)

country comparison to the world: 208

**Merchant marine:**

total: 3

by type: cargo 1, passenger/cargo 2 (2010)

country comparison to the world: 139

**Ports and terminals:**

Major seaport(s): Colonia (Tomil Harbor), Lele Harbor, Pohnepi Harbor

**Military branches:**

No regular military forces (2012)

Defense is the responsibility of the U.S.

**Disputes - international:** none**Illicit drugs:** major consumer of cannabis

## Acronyms and Abbreviations

<b>Acronym</b>	<b>Definition</b>
ADB	Asian Development Bank
BOMA	Building Owners and Managers Association International
CADRE	Climate Adaptation and Disaster Risk Education
CCA	Climate Change Adaptation
CDC	Center for Disease Control and Prevention
CFA, COFA, Compact	Compact Free Association
CFE-DM	Center for Excellence in Disaster Management and Humanitarian Assistance
CIA	Central Intelligence Agency
CPUC	Chuuk Public Utility Corporation
DAC	Disaster Assistance Coordinator
DAEF	Disaster Assistance Emergency Fund
DFAT	Department of Foreign Affairs and Trade
DM	Disaster Management
DMHA	Disaster Management and Humanitarian Assistance
DMRRP	Disaster Mitigation, Relief, and Reconstruction Program
DOD	Department of Defense
DOS	Department of State
DREE	Disaster Response Exercise and Exchange
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DSCA	Defense Security Cooperation Agency
DTCI	Department of Transportation, Communication and Infrastructure
EOCs	Emergency Operation Centers
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization
FEMA	Federal Emergency Management Agency
FS	Forest Service
FSM	Federated States of Micronesia
FSMTC	FSM Telecommunications Corporation
ft	feet
FY	Fiscal Year
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
HDR	Humanitarian Daily Rations
HF	High Frequency
HFA	Hyogo Framework for Action
IMF	Infrastructure Maintenance Fund
INFORM	Index for Risk Management
IOM	International Organization for Migration
IREI	Island Research and Education Initiative
ITU	International Telecommunications Union



<b>Acronym</b>	<b>Definition</b>
J4	Joint Staff Logistics Directorate
JTF-HD	Joint Task Force Homeland Defense
JTWC	Joint Typhoon Warning Center
km	kilometers
MDG	Millennium Development Goals
MRCSS	Micronesia Red Cross Society
NCD	Non-communicable Diseases
NER	Net Enrollment Rate
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NORMA	National Oceanic Resources Management Authority
NWS	National Weather Service
ODA	Overseas Development Assistance
OEEM	Office of Environment and Emergency Management
OFDA	Office of Foreign Disaster Assistance
PA	Public Address System
PDA	Preliminary Damage Assessment
PNA	Parties to the Nauru Agreement
PRCS	Palau Red Cross Society
PREPARE	Disaster Preparedness for Effective Response
PRiMO	Pacific Risk Management 'Ohana
PWA	Pacific Water Association
RMI	Republic of the Marshall Islands
SDP	Strategic Development Plan
SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
SWARS	State-Wide Assessments and Resource Strategies
TAF	The Asia Foundation
TB	Tuberculosis
TTPI	Trust Territory of the Pacific Islands
TWS	Tsunami Warning System
U.S.	United States
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Risk Reduction
USAID	United States Agency for International Development
USAID/OFDA	USAID's Office of U.S. Foreign Disaster Assistance
USDA	United States Department of Agriculture
USG	United States Government
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization
WMO	World Meteorological Organization

## References (Endnotes)

- <sup>1</sup> Statistical Yearbook for Asia and the Pacific 2014, Economic and Social Commission for Asia and the Pacific (UNESCAP), <http://www.unescap.org/resources/statistical-yearbook-asia-and-pacific-2014> and the Asia-Pacific Disaster Report 2015, UNESCAP, <http://www.unescap.org/resources/asia-pacific-disaster-report-2015>
- <sup>2</sup> Asia-Pacific Disaster Report 2015, UNESCAP, <http://www.unescap.org/resources/asia-pacific-disaster-report-2015>
- <sup>3</sup> Asia-Pacific Disaster Report 2015, UNESCAP, <http://www.unescap.org/resources/asia-pacific-disaster-report-2015>
- <sup>4</sup> Natural Disasters Pose Extra Threat for Pacific Islanders With Disabilities. USAID. <https://www.usaid.gov/results-data/success-stories/building-inclusive-culture-safety-pacific>
- <sup>5</sup> Interview: Even small disasters can overwhelm small-island economies. UN Resident Coordinator in the Pacific Osnat Lubrani. May 13, 2014. United Nations Office for the Coordination of Humanitarian Affairs (OCHA). <http://www.unocha.org/top-stories/all-stories/interview-%E2%80%9Ceven-small-disasters-can-overwhelm-small-island-economies%E2%80%9D>
- <sup>6</sup> Micronesia, Federated States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAProgress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAProgress_2011-13.pdf)
- <sup>7</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>8</sup> Natural Disasters Pose Extra Threat for Pacific Islanders With Disabilities. USAID. <https://www.usaid.gov/results-data/success-stories/building-inclusive-culture-safety-pacific>
- <sup>9</sup> Tropical Cyclone MAYSAK - Federated States of Micronesia, Philippines (ECHO Daily Map, 2/4/2015) Relief Web. <http://reliefweb.int/map/micronesia-federated-states/tropical-cyclone-maysak-federated-states-micronesia-philippines-echo>
- <sup>10</sup> Report of the Working Group on the Universal Periodic Review. Federated States of Micronesia. December 23, 2015. United Nations General Assembly. <http://www.ohchr.org/SP/NewsEvents/Pages/DisplayNews.aspx?NewsID=17240&LangID=E>
- <sup>11</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>12</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>13</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785psthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785psthfaconsultationoutcomefms1.pdf)
- <sup>14</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>15</sup> Typhoon Assistance to Micronesia Tops USD 10 Million. International Organization for Migration (IOM). <http://www.iom.int/news/typhoon-assistance-micronesia-tops-usd-10-million>
- <sup>16</sup> Pacific Islands Regional Profile. USAID. January 2016. [https://scms.usaid.gov/sites/default/files/documents/1861/PacificIslands\\_Regional\\_Profile.pdf](https://scms.usaid.gov/sites/default/files/documents/1861/PacificIslands_Regional_Profile.pdf)
- <sup>17</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>18</sup> Emergency Preparedness & Response Plan: A guide to inter-agency humanitarian action in the Pacific. Pacific Humanitarian Team. <http://reliefweb.int/report/world/emergency-preparedness-response-plan-guide-inter-agency-humanitarian-action-pacific>
- <sup>19</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>20</sup> The Federated States of Micronesia. About the Federated States of Micronesia. 2012. <http://www.visit-micronesia.fm/about/index.html>
- <sup>21</sup> Full political map of Micronesia. 2011. Vidiani.com maps of the world. <http://www.vidiani.com/full-political-map-of-micronesia/>
- <sup>22</sup> Government of the Federated States of Micronesia. <http://www.fsmgov.org/info/geog.html>
- <sup>23</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>24</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>25</sup> Sophie Foster. Encyclopedia Britannica. Micronesia. 2016. <https://www.britannica.com/place/Micronesia-republic-Pacific-Ocean>
- <sup>26</sup> Introducing Federated States of Micronesia. Lonely Planet. <http://www.lonelyplanet.com/federated-states-of-micronesia/introduction>

- <sup>27</sup> Introducing Federated States of Micronesia. Lonely Planet. <http://www.lonelyplanet.com/federated-states-of-micronesia/introduction>
- <sup>28</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>29</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>30</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>31</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>32</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>33</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>34</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>35</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>36</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>37</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>38</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>39</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>40</sup> Statistical yearbook for Asia and the Pacific. 2011. <http://www.unescap.org/stat/data/syb2011/II-Environment/Natural-disasters.asp>
- <sup>41</sup> CIA. The World Factbook. Federated States of Micronesia. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>
- <sup>42</sup> Office of Statistics, Budget and Economic Management, Overseas Development Assistance, And Compact Management. Federated States of Micronesia. <http://www.sboc.fm/index.php?id0=Vm0xMFIWbFdTbkpQVm1SU1lrvNdVbFpyVWtKUFVUMDk>
- <sup>43</sup> Micronesia: Federated States of Micronesia. Map. Encyclopedia Britannica Online. Web. 07 Sep. 2016. <https://www.britannica.com/place/Micronesia-republic-Pacific-Ocean/images-videos/Micronesia-Federated-States-of-Micronesia/138486>
- <sup>44</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>45</sup> Joanne Thomas. USA Today. Micronesia Culture. <http://traveltips.usatoday.com/micronesia-culture-11238.html>
- <sup>46</sup> Photo Source: Yap Village Basketweaving. David Weekly. September 9, 2008. <https://www.flickr.com/photos/dweekly/2849795424/>
- <sup>47</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>48</sup> Typhoon Maysak: Photographer Brad Holland captures the recovery on islands of Yap in Micronesia <http://www.abc.net.au/news/2015-04-08/pictures-show-devastation-typhoon-maysak-micronesia/6378904>
- <sup>49</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>50</sup> Joanne Thomas. USA Today. Micronesia Culture. <http://traveltips.usatoday.com/micronesia-culture-11238.html>
- <sup>51</sup> Photo: Flying over Chuuk, Micronesia by Matt Kieffer, October 1, 2009. <https://www.flickr.com/photos/mattkieffer/4019344657>
- <sup>52</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>53</sup> Compact Nation Trip Report. FSM Site Survey 11/9/15-11/14/15 Summary of Findings. Modified August 31, 2016.
- <sup>54</sup> Compact Nation Trip Report. FSM Site Survey 11/9/15-11/14/15 Summary of Findings. Modified August 31, 2016.
- <sup>55</sup> Joanne Thomas. USA Today. Micronesia Culture. <http://traveltips.usatoday.com/micronesia-culture-11238.html>
- <sup>56</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>57</sup> Kosrae, Micronesia. Photo by Matt Kieffer. October 7, 2009. <https://www.flickr.com/photos/mattkieffer/4019685196>
- <sup>58</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>59</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>60</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>61</sup> United States Department of State. Micronesia Human Rights Assessment. <http://www.state.gov/documents/organization/160093.pdf>
- <sup>62</sup> Federated States of Micronesia Department of Health and Social Affairs. FSM Family Health and Safety Study: A prevalence study on violence against women. 2014. <http://countryoffice.unfpa.org/pacific/drive/FSMFHSSReportweb.pdf>
- <sup>63</sup> U.S. Department of State. Office to Monitor and Combat Trafficking in Persons. Micronesia. Office to Monitor and Combat Trafficking in Persons. 2015. <http://www.state.gov/j/tip/rls/tiprpt/countries/2015/243493.htm>

- <sup>64</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>
- <sup>65</sup> Humanium. Children in Micronesia: Realizing Children's Rights in Micronesia. 2013. <http://www.humanium.org/en/asia-pacific/micronesia/>
- <sup>66</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>
- <sup>67</sup> FSM Office of Statistics, Budget, and Economic Management and the UN Development Program. Millennium Development Goals & the Federated States of Micronesia – Status Report 2010. [http://www.undp.org/content/dam/undp/library/MDG/english/MDG%20Country%20Reports/Micronesia/FSM\\_MDG%202010.pdf](http://www.undp.org/content/dam/undp/library/MDG/english/MDG%20Country%20Reports/Micronesia/FSM_MDG%202010.pdf)
- <sup>68</sup> Asian Development Bank. Poverty in the Federated States of Micronesia. 2016. <http://www.adb.org/countries/micronesia/poverty>
- <sup>69</sup> Asian Development Bank. Poverty in the Federated States of Micronesia. 2016. <http://www.adb.org/countries/micronesia/poverty>
- <sup>70</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>
- <sup>71</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>
- <sup>72</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>
- <sup>73</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>
- <sup>74</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>
- <sup>75</sup> Micronesian Exodus. Discussion Paper 16. Pacific Institute of Public Policy. December 10, 2010. <http://pacificpolicy.org/2010/12/micronesian-exodus/>
- <sup>76</sup> Typhoon Assistance to Micronesia Tops USD 10 Million. International Organization for Migration (IOM). <http://www.iom.int/news/typhoon-assistance-micronesia-tops-usd-10-million>
- <sup>77</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>78</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>79</sup> U.S. Department of State. Bureau of East Asian and Pacific Affairs. U.S.-Federated States of Micronesia (FSM) Relations. 2016. <http://www.state.gov/r/pa/ei/bgn/1839.htm>
- <sup>80</sup> The Federated States of Micronesia: The "Push" to Migrate. July 1, 2003, Elizabeth Grieco, Migration Policy Institute. <http://www.migrationpolicy.org/article/federated-states-micronesia-push-migrate>
- <sup>81</sup> U.S. Department of State. Bureau of East Asian and Pacific Affairs. U.S.-Federated States of Micronesia (FSM) Relations. 2016. <http://www.state.gov/r/pa/ei/bgn/1839.htm>
- <sup>82</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>83</sup> Government of the Federated States of Micronesia. Economy. <http://www.fsmgov.org/info/econ.html>
- <sup>84</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>85</sup> World Bank. 2016. Systematic Country Diagnostic For Eight Small Pacific Island Countries: Priorities For Ending Poverty And Boosting Shared Prosperity. World Bank. License: Creative Commons Attribution—Non Commercial—No Derivatives 3.0 IGO (CC BY-NC-ND 3.0 IGO). <http://documents.worldbank.org/curated/en/313021467995103008/pdf/102803-REPLACEMENT-SecM2016-0025.pdf>

<sup>86</sup> Figure Source: CMD presentation to JEMCO, August 2015 – “Dismal growth scenario” was the lowest forecast growth scenario in the SDP featured in Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)

<sup>87</sup> Figure Source: CMD presentation to JEMCO, August 2015 – “Dismal growth scenario” was the lowest forecast growth scenario in the SDP featured in Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)

<sup>88</sup> Figure Source: CMD presentation to JEMCO, August 2015 – “Dismal growth scenario” was the lowest forecast growth scenario in the SDP featured in Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)

<sup>89</sup> Natural Resources. Government of the Federated States of Micronesia. <http://www.fsmgov.org/info/natres.html>

<sup>90</sup> Natural Resources. Government of the Federated States of Micronesia. <http://www.fsmgov.org/info/natres.html>

<sup>91</sup> Jane’s Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>92</sup> Jane’s Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>93</sup> Government of the Federated States of Micronesia. Geography. <http://www.fsmgov.org/info/geog.html>

<sup>94</sup> Federated States Of Micronesia’s Strategic Development Plan 2004-2023. Vol I: Policies and Strategies for Development. [http://prdrse4all.spc.int/system/files/fsm\\_sdp\\_vol\\_1\\_0.pdf](http://prdrse4all.spc.int/system/files/fsm_sdp_vol_1_0.pdf)

<sup>95</sup> Federated States of Micronesia. Excerpt from the Federated States of Micronesia Strategic Development Plan. PEIN Country Profile and Virtual Environment Library. SPREP: Secretariat of the Pacific Regional Environment Programme. <http://www.sprep.org/Federated-States-of-Micronesia/federated-states-of-micronesia-pein>

<sup>96</sup> Jane’s Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>97</sup> Jane’s Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>98</sup> USA and Federated States of Micronesia formalise maritime boundaries agreement. Pacific Community. August 1, 2014. <http://gsd.spc.int/media-releases/1-latest-news/579-usa-and-federated-states-of-micronesia-formalise-maritime-boundaries-agreement>

<sup>99</sup> Micronesia, Federated States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)

<sup>100</sup> Jane’s Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>101</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)

<sup>102</sup> Climate, climate variability and change of FSM. Pacific Climate Change Science Program. <http://www.pacificclimatechangescience.org/wp-content/uploads/2013/10/2.-FSM-GH-Poster.pdf>

<sup>103</sup> Climate Adaptation, Disaster Risk Reduction, and Education (CADRE) Program Fact Sheet. Australian AID (AusAID). <http://www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/federated-states-micronesia/IOM-FSM-RMI-CADRE-Factsheet.pdf>

<sup>104</sup> Jane’s Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>105</sup> Multi-State Multi-Hazard Mitigation Plan for the Federated States of Micronesia. 2005. [http://www.preventionweb.net/files/27083\\_finalfsmmultihmplan\[1\].pdf](http://www.preventionweb.net/files/27083_finalfsmmultihmplan[1].pdf)

<sup>106</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)

<sup>107</sup> INFORM( Index for Risk Management) <http://www.inform-index.org/>

<sup>108</sup> Micronesia. INFORM Index for Risk Management. 2016. [http://www.inform-index.org/Portals/0/InfoRM/2016/Country\\_Profiles/FSM.pdf](http://www.inform-index.org/Portals/0/InfoRM/2016/Country_Profiles/FSM.pdf)

<sup>109</sup> Asia and the Pacific: Weekly Regional Humanitarian Snapshot (19 - 25 January 2016). OCHA. [http://reliefweb.int/sites/reliefweb.int/files/resources/ROAP\\_Snapshot\\_160125.pdf](http://reliefweb.int/sites/reliefweb.int/files/resources/ROAP_Snapshot_160125.pdf)

<sup>110</sup> Assistance for Typhoon Maysak Victims in the Federated States of Micronesia. USAID. Last updated January 13, 2016. <https://www.usaid.gov/pacific-islands/working-crises-and-conflict/typhoon-maysak-assistance-fsm>

<sup>111</sup> Assistance for Typhoon Maysak Victims in the Federated States of Micronesia. Photo: Mark Adams, IOM. USAID. News & Information, Facts Sheets. Website last updated January 13, 2016. <https://www.usaid.gov/pacific-islands/working-crises-and-conflict/typhoon-maysak-assistance-fsm>

- <sup>112</sup> Micronesia-Typhoon Maysak. Fact Sheet #3, April 22, 2015. [https://www.usaid.gov/sites/default/files/documents/1866/typhoon\\_maysak\\_fs03\\_04-22-2015.pdf](https://www.usaid.gov/sites/default/files/documents/1866/typhoon_maysak_fs03_04-22-2015.pdf)
- <sup>113</sup> Tropical Cyclone MAYSAK - Federated States of Micronesia, Philippines (ECHO Daily Map, 2/4/2015) Relief Web. <http://reliefweb.int/map/micronesia-federated-states/tropical-cyclone-maysak-federated-states-micronesia-philippines-echo>
- <sup>114</sup> Typhoon Assistance to Micronesia Tops USD 10 Million. International Organization for Migration (IOM). <http://www.iom.int/news/typhoon-assistance-micronesia-tops-usd-10-million>
- <sup>115</sup> Federated States of Micronesia. Relief Web. <http://reliefweb.int/country/fsm>
- <sup>116</sup> Palau assesses damage after Super Typhoon Haiyan. November 7, 2013. ABC News. <http://www.abc.net.au/news/2013-11-07/an-super-typhoon-hainan-hits-palau/5075198>
- <sup>117</sup> Federated States of Micronesia. Relief Web. <http://reliefweb.int/country/fsm>
- <sup>118</sup> Federated States of Micronesia. Views on the Possible Security Implications of Climate Change to be included in the report of the Secretary-General to the 64th Session of the United Nations General Assembly Submitted pursuant to UN General Assembly Resolution A/RES/63/281. [https://sustainabledevelopment.un.org/content/dsd/resources/res\\_pdfs/ga-64/cc-inputs/Micronesia\\_CCIS.pdf](https://sustainabledevelopment.un.org/content/dsd/resources/res_pdfs/ga-64/cc-inputs/Micronesia_CCIS.pdf)
- <sup>119</sup> Emergency Preparedness & Response Plan: A guide to inter-agency humanitarian action in the Pacific. Pacific Humanitarian Team. <http://reliefweb.int/report/world/emergency-preparedness-response-plan-guide-inter-agency-humanitarian-action-pacific>
- <sup>120</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>121</sup> Federated States of Micronesia. Relief Web. <http://reliefweb.int/country/fsm>
- <sup>122</sup> Micronesia's Yap atoll severely damaged by Typhoon Sudal: report. April 12, 2004. <http://reliefweb.int/report/micronesia-federated-states/micronesias-yap-atoll-severely-damaged-typhoon-sudal-report>
- <sup>123</sup> Federated States of Micronesia. Relief Web. <http://reliefweb.int/country/fsm>
- <sup>124</sup> Micronesia - Typhoon Lupit OCHA Situation Report No. 2. <http://reliefweb.int/report/micronesia-federated-states/micronesia-typhoon-lupit-ocha-situation-report-no-2>
- <sup>125</sup> Disaster Relief Emergency Fund (Dref) Program Update. December 19, 2002. <http://www.ifrc.org/docs/appeals/annual02/01610203.pdf>
- <sup>126</sup> Micronesia - Typhoon Mitag OCHA Situation Report No. 1. Relief Web. <http://reliefweb.int/report/micronesia-federated-states/micronesia-typhoon-mitag-ocha-situation-report-no-1>
- <sup>127</sup> FSM El Niño Drought OCHA Situation Report No. 1. Relief Web. <http://reliefweb.int/report/micronesia-federated-states/fsm-el-ni%C3%B1o-drought-ocha-situation-report-no-1>
- <sup>128</sup> Federated States of Micronesia. Views on the Possible Security Implications of Climate Change to be included in the report of the Secretary-General to the 64th Session of the United Nations General Assembly Submitted pursuant to UN General Assembly Resolution A/RES/63/281. [https://sustainabledevelopment.un.org/content/dsd/resources/res\\_pdfs/ga-64/cc-inputs/Micronesia\\_CCIS.pdf](https://sustainabledevelopment.un.org/content/dsd/resources/res_pdfs/ga-64/cc-inputs/Micronesia_CCIS.pdf)
- <sup>129</sup> Micronesia Tropical Storm Nov 1987 UNDR OCHA Situation Report 1. Relief Web. <http://reliefweb.int/report/micronesia-federated-states/micronesia-tropical-storm-nov-1987-undro-situation-report-1>
- <sup>130</sup> Federated States of Micronesia. Views on the Possible Security Implications of Climate Change to be included in the report of the Secretary-General to the 64th Session of the United Nations General Assembly Submitted pursuant to UN General Assembly Resolution A/RES/63/281. [https://sustainabledevelopment.un.org/content/dsd/resources/res\\_pdfs/ga-64/cc-inputs/Micronesia\\_CCIS.pdf](https://sustainabledevelopment.un.org/content/dsd/resources/res_pdfs/ga-64/cc-inputs/Micronesia_CCIS.pdf)
- <sup>131</sup> Micronesia: A Third Kind of Nation, Written Off? By Bill Blakemore. December 9, 2009. ABC News. <http://abcnews.go.com/Technology/global-warming-micronesia-island-nations-threatened-sea-level/story?id=9280340>
- <sup>132</sup> Federated States of Micronesia. Views on the Possible Security Implications of Climate Change to be included in the report of the Secretary-General to the 64th Session of the United Nations General Assembly Submitted pursuant to UN General Assembly Resolution A/RES/63/281. [https://sustainabledevelopment.un.org/content/dsd/resources/res\\_pdfs/ga-64/cc-inputs/Micronesia\\_CCIS.pdf](https://sustainabledevelopment.un.org/content/dsd/resources/res_pdfs/ga-64/cc-inputs/Micronesia_CCIS.pdf)
- <sup>133</sup> Pacific Adaptation to Climate Change (PACC), FSM, Kosrae State, Report of in-Country Consultations (2006), p. 10, [http://www.sprep.org/att/publication/000661\\_Kosrae\\_FSM\\_NationalPACCReport\\_Final.pdf](http://www.sprep.org/att/publication/000661_Kosrae_FSM_NationalPACCReport_Final.pdf)
- <sup>134</sup> Pacific Adaptation to Climate Change (PACC), FSM, Kosrae State, Report of in-Country Consultations (2006), p. 10, [http://www.sprep.org/att/publication/000661\\_Kosrae\\_FSM\\_NationalPACCReport\\_Final.pdf](http://www.sprep.org/att/publication/000661_Kosrae_FSM_NationalPACCReport_Final.pdf)
- <sup>135</sup> Federated States of Micronesia. Views on the Possible Security Implications of Climate Change to be included in the report of the Secretary-General to the 64th Session of the United Nations General Assembly Submitted pursuant to UN General Assembly Resolution A/RES/63/281. [https://sustainabledevelopment.un.org/content/dsd/resources/res\\_pdfs/ga-64/cc-inputs/Micronesia\\_CCIS.pdf](https://sustainabledevelopment.un.org/content/dsd/resources/res_pdfs/ga-64/cc-inputs/Micronesia_CCIS.pdf)
- <sup>136</sup> Federated States of Micronesia's Strategic Development Plan 2004-2023. Vol I: Policies and Strategies for Development. [http://prdrse4all.spc.int/system/files/fsm\\_sdp\\_vol\\_1\\_0.pdf](http://prdrse4all.spc.int/system/files/fsm_sdp_vol_1_0.pdf)

- <sup>137</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>138</sup> Disaster Preparedness for Effective Response (PREPARE) Program. USAID. News & Information Fact sheets. Last updated: January 13, 2016. <http://reliefweb.int/report/micronesia-federated-states/disaster-preparedness-effective-response-prepare-program-june-15>
- <sup>139</sup> Federated States of Micronesia. Views on the Possible Security Implications of Climate Change to be included in the report of the Secretary-General to the 64th Session of the United Nations General Assembly Submitted pursuant to UN General Assembly Resolution A/RES/63/281. [https://sustainabledevelopment.un.org/content/dsd/resources/res\\_pdfs/ga-64/cc-inputs/Micronesia\\_CCIS.pdf](https://sustainabledevelopment.un.org/content/dsd/resources/res_pdfs/ga-64/cc-inputs/Micronesia_CCIS.pdf)
- <sup>140</sup> Federated States Of Micronesia's Strategic Development Plan 2004-2023. Vol I: Policies and Strategies for Development. [http://prdrse4all.spc.int/system/files/fsm\\_sdp\\_vol\\_1\\_0.pdf](http://prdrse4all.spc.int/system/files/fsm_sdp_vol_1_0.pdf)
- <sup>141</sup> Health Information for Travelers to the Federated States of Micronesia (Including Yap Islands, Pohnpei, Chuuk, and Kosrae). Centers for Disease Control and Prevention. <http://wwwnc.cdc.gov/travel/destinations/traveler/none/micronesia#notices>
- <sup>142</sup> Human leptospirosis in The Federated States of Micronesia: a hospital-based febrile illness survey. April 7, 2014. BMC Infectious Diseases. S. Colt, B. Pavlin, J. Kool, E. Johnson, J. McCool, and A. Woodward. <http://bmcinfectdis.biomedcentral.com/articles/10.1186/1471-2334-14-186>
- <sup>143</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>144</sup> Emergency Preparedness & Response Plan: A guide to inter-agency humanitarian action in the Pacific. Pacific Humanitarian Team. <http://reliefweb.int/report/world/emergency-preparedness-response-plan-guide-inter-agency-humanitarian-action-pacific>
- <sup>145</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>146</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>147</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>148</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>149</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)
- <sup>150</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)
- <sup>151</sup> Micronesia, Federated States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>152</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)
- <sup>153</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)
- <sup>154</sup> Pacific Islands Regional Profile. USAID. January 2016. [https://scms.usaid.gov/sites/default/files/documents/1861/PacificIslands\\_Regional\\_Profile.pdf](https://scms.usaid.gov/sites/default/files/documents/1861/PacificIslands_Regional_Profile.pdf)
- <sup>155</sup> Micronesia, Federated States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>156</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>157</sup> Emergency Preparedness & Response Plan: A guide to inter-agency humanitarian action in the Pacific. Pacific Humanitarian Team. <http://reliefweb.int/report/world/emergency-preparedness-response-plan-guide-inter-agency-humanitarian-action-pacific>
- <sup>158</sup> Emergency Preparedness & Response Plan: A guide to inter-agency humanitarian action in the Pacific. Pacific Humanitarian Team. <http://reliefweb.int/report/world/emergency-preparedness-response-plan-guide-inter-agency-humanitarian-action-pacific>
- <sup>159</sup> Micronesia-Typhoon Maysak. Fact Sheet #5, September 2, 2015. [https://www.usaid.gov/sites/default/files/documents/1866/micronesia\\_fs05\\_09-02-2015.pdf](https://www.usaid.gov/sites/default/files/documents/1866/micronesia_fs05_09-02-2015.pdf)
- <sup>160</sup> Micronesia-Typhoon Maysak. Fact Sheet #5, September 2, 2015. [https://www.usaid.gov/sites/default/files/documents/1866/micronesia\\_fs05\\_09-02-2015.pdf](https://www.usaid.gov/sites/default/files/documents/1866/micronesia_fs05_09-02-2015.pdf)
- <sup>161</sup> Micronesia-Typhoon Maysak. Fact Sheet #5, September 2, 2015. [https://www.usaid.gov/sites/default/files/documents/1866/micronesia\\_fs05\\_09-02-2015.pdf](https://www.usaid.gov/sites/default/files/documents/1866/micronesia_fs05_09-02-2015.pdf)
- <sup>162</sup> Micronesia-Typhoon Maysak. Fact Sheet #3, April 22, 2015. [https://www.usaid.gov/sites/default/files/documents/1866/typhoon\\_maysak\\_fs03\\_04-22-2015.pdf](https://www.usaid.gov/sites/default/files/documents/1866/typhoon_maysak_fs03_04-22-2015.pdf)

- <sup>163</sup> Assistance for Typhoon Maysak Victims in the Federated States of Micronesia. Photo: Mark Adams, IOM. USAID. News & Information, Facts Sheets. Website last updated January 13, 2016. <https://www.usaid.gov/pacific-islands/working-crises-and-conflict/typhoon-maysak-assistance-fsm>
- <sup>164</sup> Assistance for Typhoon Maysak Victims in the Federated States of Micronesia. Photo: Mark Adams, IOM. USAID. News & Information, Facts Sheets. Website last updated January 13, 2016. <https://www.usaid.gov/pacific-islands/working-crises-and-conflict/typhoon-maysak-assistance-fsm>
- <sup>165</sup> Disaster Preparedness for Effective Response (PREPARE) Program. USAID. News & Information Fact sheets. Last updated: January 13, 2016. <http://reliefweb.int/report/micronesia-federated-states/disaster-preparedness-effective-response-prepare-program-june-15>
- <sup>166</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>167</sup> Typhoon Assistance to Micronesia Tops USD 10 Million. International Organization for Migration (IOM). <http://www.iom.int/news/typhoon-assistance-micronesia-tops-usd-10-million>
- <sup>168</sup> Typhoon Assistance to Micronesia Tops USD 10 Million. International Organization for Migration (IOM). IOM/Joe Lowry 2015. <http://www.iom.int/news/typhoon-assistance-micronesia-tops-usd-10-million>
- <sup>169</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)
- <sup>170</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)
- <sup>171</sup> Micronesia, Federated States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>172</sup> Micronesia-Typhoon Maysak. Fact Sheet #3, April 22, 2015. [https://www.usaid.gov/sites/default/files/documents/1866/typhoon\\_maysak\\_fs03\\_04-22-2015.pdf](https://www.usaid.gov/sites/default/files/documents/1866/typhoon_maysak_fs03_04-22-2015.pdf)
- <sup>173</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>174</sup> Micronesia-Typhoon Maysak. Fact Sheet #3, April 22, 2015. [https://www.usaid.gov/sites/default/files/documents/1866/typhoon\\_maysak\\_fs03\\_04-22-2015.pdf](https://www.usaid.gov/sites/default/files/documents/1866/typhoon_maysak_fs03_04-22-2015.pdf)
- <sup>175</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>176</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>177</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>178</sup> Emergency Preparedness & Response Plan: A guide to inter-agency humanitarian action in the Pacific. Pacific Humanitarian Team. <http://reliefweb.int/report/world/emergency-preparedness-response-plan-guide-inter-agency-humanitarian-action-pacific>
- <sup>179</sup> USC 404: Foreign Disaster Assistance. <http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title10-section404&num=0&edition=prelim>
- <sup>180</sup> Disaster Preparedness for Effective Response (PREPARE) Program. USAID. News & Information Fact sheets. Last updated: January 13, 2016. <http://reliefweb.int/report/micronesia-federated-states/disaster-preparedness-effective-response-prepare-program-june-15>
- <sup>181</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>182</sup> Multi-State Multi-Hazard Mitigation Plan for the Federated States of Micronesia. 2005. [http://www.preventionweb.net/files/27083\\_finalfsmmultihmplan\[1\].pdf](http://www.preventionweb.net/files/27083_finalfsmmultihmplan[1].pdf)
- <sup>183</sup> Federated States Of Micronesia's Strategic Development Plan 2004-2023. Vol I: Policies and Strategies for Development. [http://prdrse4all.spc.int/system/files/fsm\\_sdp\\_vol\\_1\\_0.pdf](http://prdrse4all.spc.int/system/files/fsm_sdp_vol_1_0.pdf)
- <sup>184</sup> FSM Nation Wide Climate Change Policy. 2009. [http://www.preventionweb.net/files/27083\\_nationwideclimatechangepolicy.pdf](http://www.preventionweb.net/files/27083_nationwideclimatechangepolicy.pdf)
- <sup>185</sup> FSM Agriculture Policy 2012-2016. [http://www.preventionweb.net/files/27083\\_fsmagriculturepolicy.pdf](http://www.preventionweb.net/files/27083_fsmagriculturepolicy.pdf)
- <sup>186</sup> FSM Environment Sector 5 Year Plan 2010-2015. [http://www.preventionweb.net/files/27083\\_environmentsector5yearplan.pdf](http://www.preventionweb.net/files/27083_environmentsector5yearplan.pdf)
- <sup>187</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)



- <sup>188</sup> Disaster Risk Management Training. June 27, 2010. Pacific Community. <http://gsd.spc.int/pacific-drm-training>
- <sup>189</sup> Typhoon Assistance to Micronesia Tops US\$10 Million. Micronesia, October 2015 update. IOM. [https://www.iom.int/sites/default/files/mission\\_newsletter/file/IOM-Micronesia-October-2015-Update.pdf](https://www.iom.int/sites/default/files/mission_newsletter/file/IOM-Micronesia-October-2015-Update.pdf)
- <sup>190</sup> U.S. Department of State. Bureau of East Asian and Pacific Affairs. U.S.-Federated States of Micronesia (FSM) Relations. 2016. <http://www.state.gov/r/pa/ei/bgn/1839.htm>
- <sup>191</sup> Disaster Preparedness for Effective Response (PREPARE) Program. USAID. News & Information Fact sheets. Last updated: January 13, 2016. <http://reliefweb.int/report/micronesia-federated-states/disaster-preparedness-effective-response-prepare-program-june-15>
- <sup>192</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>193</sup> Disaster Preparedness for Effective Response (PREPARE) Program. USAID. News & Information Fact sheets. Last updated: January 13, 2016. <http://reliefweb.int/report/micronesia-federated-states/disaster-preparedness-effective-response-prepare-program-june-15>
- <sup>194</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>195</sup> Pacific Islands Meteorological Strategy 2012-2021. Sustaining Weather and Climate Services in Pacific Island Countries and Territories. <https://portals.iucn.org/library/sites/library/files/documents/Atm-Cl-107.pdf>
- <sup>196</sup> Pacific Islands Meteorological Strategy 2012-2021. Sustaining Weather and Climate Services in Pacific Island Countries and Territories. <https://portals.iucn.org/library/sites/library/files/documents/Atm-Cl-107.pdf>
- Pacific Islands Meteorological Strategy 2012-2021. Sustaining Weather and Climate Services in Pacific Island Countries and Territories. <https://portals.iucn.org/library/sites/library/files/documents/Atm-Cl-107.pdf>
- NOAA in the Pacific. <https://www.hSDL.org/?view&did=468368>
- Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>200</sup> Embassy of the United States, Kolonia, Micronesia. <https://kolonia.usembassy.gov/>
- <sup>201</sup> Naval Meteorology and Oceanography Command. <http://www.usno.navy.mil/JTWC/frequently-asked-questions-1/frequently-asked-questions#tcfa>
- <sup>202</sup> Naval Meteorology and Oceanography Command. <http://www.usno.navy.mil/JTWC/frequently-asked-questions-1/frequently-asked-questions#tcfa>
- <sup>203</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>204</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>205</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>206</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>207</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>208</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>209</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>210</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)
- <sup>211</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>212</sup> Compact Nation Trip Report. FSM Site Survey 11/9/15-11/14/15 Summary of Findings. Modified August 31, 2016.
- <sup>213</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>214</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>215</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

- <sup>216</sup> Development assistance in the Federated States of Micronesia: Overview of Australia's aid program to the Federated States of Micronesia. Australian Government: Department of Foreign Affairs and Trade. <http://dfat.gov.au/geo/federated-states-of-micronesia/development-assistance/Pages/development-assistance-in-federated-states-of-micronesia.aspx>
- <sup>217</sup> Development assistance in the Federated States of Micronesia: Overview of Australia's aid program to the Federated States of Micronesia. Australian Government: Department of Foreign Affairs and Trade. <http://dfat.gov.au/geo/federated-states-of-micronesia/development-assistance/Pages/development-assistance-in-federated-states-of-micronesia.aspx>
- <sup>218</sup> Australia Launches New Pacific Patrol Boat Program: Providing patrol boats to its island neighbors gives Australia influence and stability in its emerging periphery. Shahryar Pasandideh. July 01, 2014. The Diplomat. <http://thediplomat.com/2014/07/australia-launches-new-pacific-patrol-boat-program/>
- <sup>219</sup> Pacific Patrol Boat Program, Nautilus Institute for Security and Sustainability, Forum Fisheries Agency Comments, <http://nautilus.org/publications/books/australianforces-abroad/pacific-islands/pacific-patrol-boat-program/>
- <sup>220</sup> Australia's support to FSM through the Pacific Patrol Boat Program. May 11, 2015. The Kaselehlie Press. [http://www.fm/news/kp/2015/may11\\_5.htm](http://www.fm/news/kp/2015/may11_5.htm)
- <sup>221</sup> Federated States of Micronesia Inspection Vessels for WCPFC for Boarding and Inspection Activities. <https://www.wcpfc.int/system/files/Photos%20of%20FSM%20Inspection%20Vessels.pdf>
- <sup>222</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>223</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)
- <sup>224</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>225</sup> Wall Weave, Yap Village. Photo by David Weekly. September 9, 2008. <https://www.flickr.com/photos/dweekly/2849014513/in/photolist-5kKXev-5kKWKT-5kKGCZ>
- <sup>226</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>227</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>228</sup> World Airport Codes. <https://www.world-airport-codes.com/search/?s=micronesia&selected-airport=>
- <sup>229</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>230</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.
- <sup>231</sup> F.S.M. Airports and Civil Airfields. Federated States of Micronesia Division of Civil Aviation. <http://www.ict.fm/civilaviation/pohnpei.html>
- <sup>232</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>233</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>234</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>235</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>236</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. April 5, 2013. <http://photos.state.gov/libraries/marshallislands/19452/pdfs/04%2005%2013%20-%20FSM-RMI%20and%20Palau%20Program%20Summary.pdf>
- <sup>237</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>238</sup> Summary Analysis of Key Indicators from the FSM 2010 Census of Population and Housing. Division of Statistics FSM Office of Statistics, Budget, Overseas Development Assistance and Compact Management (S.B.O.C). [http://catalog.ihsn.org/index.php/catalog/4155/related\\_materials](http://catalog.ihsn.org/index.php/catalog/4155/related_materials)
- <sup>239</sup> U.S. Pacific Fleet. 150702-M-GO800-148. <https://www.flickr.com/photos/compacflt/19271115320>
- <sup>240</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)
- <sup>241</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>242</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)
- <sup>243</sup> Communication. Government of the Federated States of Micronesia. <http://www.fsmgov.org/info/com.html>

- <sup>244</sup> Federated States of Micronesia Infrastructure Development Plan FY2016-FY2025. Government of the Federated States of Micronesia. [http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm\\_idp\\_fy2016-fy2025\\_\\_version\\_151005\\_1\\_.pdf](http://www.yapstategov.org/uploads/2/9/6/5/29657975/fsm_idp_fy2016-fy2025__version_151005_1_.pdf)
- <sup>245</sup> Micronesia, Federated States of Micronesia, Republic of Marshall Islands, Republic of Palau Newsletter. July 2016 Update. IOM. [http://www.iom.int/sites/default/files/mission\\_newsletter/file/Micronesia-Newsletter-July2016.pdf](http://www.iom.int/sites/default/files/mission_newsletter/file/Micronesia-Newsletter-July2016.pdf)
- <sup>246</sup> Summary Analysis of Key Indicators from the FSM 2010 Census of Population and Housing. Division of Statistics FSM Office of Statistics, Budget, Overseas Development Assistance and Compact Management (S.B.O.C). [http://catalog.ihsn.org/index.php/catalog/4155/related\\_materials](http://catalog.ihsn.org/index.php/catalog/4155/related_materials)
- <sup>247</sup> Summary Analysis of Key Indicators from the FSM 2010 Census of Population and Housing. Division of Statistics FSM Office of Statistics, Budget, Overseas Development Assistance and Compact Management (S.B.O.C). [http://catalog.ihsn.org/index.php/catalog/4155/related\\_materials](http://catalog.ihsn.org/index.php/catalog/4155/related_materials)
- <sup>248</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>249</sup> Typhoon Assistance to Micronesia Tops US\$10 Million. Micronesia, October 2015 update. IOM. [https://www.iom.int/sites/default/files/mission\\_newsletter/file/IOM-Micronesia-October-2015-Update.pdf](https://www.iom.int/sites/default/files/mission_newsletter/file/IOM-Micronesia-October-2015-Update.pdf)
- <sup>250</sup> Assistance for Typhoon Maysak Victims in the Federated States of Micronesia. USAID. Last updated January 13, 2016. <https://www.usaid.gov/pacific-islands/working-crises-and-conflict/typhoon-maysak-assistance-fsm>
- <sup>251</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>252</sup> Country Cooperation Strategy at a glance: Federated States of Micronesia. World Health Organization. Updated May 2014. [http://apps.who.int/iris/bitstream/10665/136945/1/ccsbrief\\_fsm\\_en.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/136945/1/ccsbrief_fsm_en.pdf?ua=1)
- <sup>253</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>254</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>255</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>256</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>257</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>258</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>259</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>260</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>261</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>262</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>263</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>264</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>265</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>266</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>267</sup> Health Information for Travelers to the Federated States of Micronesia (Including Yap Islands, Pohnpei, Chuuk, and Kosrae). Centers for Disease Control and Prevention. <http://wwwnc.cdc.gov/travel/destinations/traveler/none/micronesia#notices>
- <sup>268</sup> GBD 2013 Mortality and Causes of Death Collaborators. (2013). Global, regional, and national age–sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 385(9963), 117–171. doi: 10.1016/S0140-6736(14)61682-2
- <sup>269</sup> Health and non-communicable diseases. The World Bank. June 2016. Xiaohui Hou, Ian Anderson, Ethan-John Burton-Mckenzie. <http://pubdocs.worldbank.org/en/942781466064200339/pacific-possible-health.pdf>
- <sup>270</sup> Health and non-communicable diseases. The World Bank. June 2016. Xiaohui Hou, Ian Anderson, Ethan-John Burton-Mckenzie. <http://pubdocs.worldbank.org/en/942781466064200339/pacific-possible-health.pdf>
- <sup>271</sup> Country Cooperation Strategy at a glance: Federated States of Micronesia. World Health Organization. Updated May 2014. [http://apps.who.int/iris/bitstream/10665/136945/1/ccsbrief\\_fsm\\_en.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/136945/1/ccsbrief_fsm_en.pdf?ua=1)
- <sup>272</sup> U.S. Peace Corps Response Volunteers in FSM. Embassy of the United States: Kolonia, Micronesia. September 11, 2004. <https://kolonia.usembassy.gov/2014-19.html>
- <sup>273</sup> Pacific Partnership 2015 Task Force Forager Federated States of Micronesia After Action Report. 21 June – 6 July 2015. United States Pacific Fleet.
- <sup>274</sup> Photo: U.S. Pacific Fleet. 150629-M-GO800-177. U.S. Marine Corps photo by combat correspondent Sgt. James Gulliver/Released. <https://www.flickr.com/photos/compacflt/19086256560/in/album-72157654857822645/>
- <sup>275</sup> The World Bank. Gender. <http://data.worldbank.org/topic/gender>
- <sup>276</sup> Asia-Pacific Input Document for the Post-2015 Framework for Disaster Risk Reduction (HFA2) Risk sensitive development as the cornerstone of resilience and sustainability, 26th June 2014, Bangkok [http://www.preventionweb.net/files/38055\\_hfa2inputfinal.pdf](http://www.preventionweb.net/files/38055_hfa2inputfinal.pdf)
- <sup>277</sup> Gender Profile: Federated States of Micronesia. [http://www.forumsec.org/resources/uploads/attachments/documents/FSM\\_Gender\\_Profile.pdf](http://www.forumsec.org/resources/uploads/attachments/documents/FSM_Gender_Profile.pdf)

- <sup>278</sup> National Minimum Development Indicators (NMDI): Compare MDG3 Indicators. Pacific Regional Information System Statistics for Development Division. Secretariat of the Pacific Community (SPC). <http://www.spc.int/nmdi/mdg3>
- <sup>279</sup> Gender Profile: Federated States of Micronesia. [http://www.forumsec.org/resources/uploads/attachments/documents/FSM\\_Gender\\_Profile.pdf](http://www.forumsec.org/resources/uploads/attachments/documents/FSM_Gender_Profile.pdf)
- <sup>280</sup> Gender Profile: Federated States of Micronesia. [http://www.forumsec.org/resources/uploads/attachments/documents/FSM\\_Gender\\_Profile.pdf](http://www.forumsec.org/resources/uploads/attachments/documents/FSM_Gender_Profile.pdf)
- <sup>281</sup> Report of the Working Group on the Universal Periodic Review. Federated States of Micronesia. December 23, 2015. United Nations General Assembly. <http://www.ohchr.org/SP/NewsEvents/Pages/DisplayNews.aspx?NewsID=17240&LangID=E>
- <sup>282</sup> Report of the Working Group on the Universal Periodic Review. Federated States of Micronesia. December 23, 2015. United Nations General Assembly. <http://www.ohchr.org/SP/NewsEvents/Pages/DisplayNews.aspx?NewsID=17240&LangID=E>
- <sup>283</sup> Gender Profile: Federated States of Micronesia. [http://www.forumsec.org/resources/uploads/attachments/documents/FSM\\_Gender\\_Profile.pdf](http://www.forumsec.org/resources/uploads/attachments/documents/FSM_Gender_Profile.pdf)
- <sup>284</sup> Development assistance in the Federated States of Micronesia: Overview of Australia's aid program to the Federated States of Micronesia. Australian Government: Department of Foreign Affairs and Trade. <http://dfat.gov.au/geo/federated-states-of-micronesia/development-assistance/Pages/development-assistance-in-federated-states-of-micronesia.aspx>
- <sup>285</sup> Pacific Partnership 2015 Task Force Forager Federated States of Micronesia After Action Report. 21 June – 6 July 2015. United States Pacific Fleet.
- <sup>286</sup> Climate Adaptation, Disaster Risk Reduction, and Education (CADRE) Program Fact Sheet. Australian AID (AusAID). <http://www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/federated-states-micronesia/IOM-FSM-RMI-CADRE-Factsheet.pdf>
- <sup>287</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>288</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>289</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)
- <sup>290</sup> Assistance for Typhoon Maysak Victims in the Federated States of Micronesia. USAID. Last updated January 13, 2016. <https://www.usaid.gov/pacific-islands/working-crises-and-conflict/typhoon-maysak-assistance-fsm>
- <sup>291</sup> Typhoon Assistance to Micronesia Tops US\$10 Million. Micronesia, October 2015 update. IOM. [https://www.iom.int/sites/default/files/mission\\_newsletter/file/IOM-Micronesia-October-2015-Update.pdf](https://www.iom.int/sites/default/files/mission_newsletter/file/IOM-Micronesia-October-2015-Update.pdf)
- <sup>292</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.
- <sup>293</sup> PACIFIC PARTNERSHIP 2011 Federated States of Micronesia (FSM) Health System Assessment.
- <sup>294</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogress\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogress_2011-13.pdf)
- <sup>295</sup> USAID/OFDA Program Summary. Federated States of Micronesia, Republic of the Marshall Islands, and Palau. USAID. Jan. 30, 2014. [https://www.usaid.gov/sites/default/files/documents/1866/palau\\_program\\_summary\\_01302014.pdf](https://www.usaid.gov/sites/default/files/documents/1866/palau_program_summary_01302014.pdf)
- <sup>296</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>297</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)
- <sup>298</sup> Climate Change in the Federated States of Micronesia: Food and Water Security, Climate Risk Management, and Adaptive Strategies. Report of Findings 2010 by Charles H. Fletcher and Bruce M. Richmond. <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/74.pdf>
- <sup>299</sup> Summary Report on the Post-HFA Consultation National 23 – 29 July 2012, Pohnpei, Federated States of Micronesia (FSM) [http://www.preventionweb.net/files/30785\\_30785posthfaconsultationoutcomefms1.pdf](http://www.preventionweb.net/files/30785_30785posthfaconsultationoutcomefms1.pdf)
- <sup>300</sup> Pacific Resilience Disaster Response Exercise and Exchange kicks off in Port Vila, Vanuatu. August 3, 2016, Capt. Chad E. Cooper. [https://www.army.mil/article/172754/pacific\\_resilience\\_disaster\\_response\\_exercise\\_and\\_exchange\\_kicks\\_off\\_in\\_port\\_vila\\_vanuatu](https://www.army.mil/article/172754/pacific_resilience_disaster_response_exercise_and_exchange_kicks_off_in_port_vila_vanuatu)
- <sup>301</sup> Photo: U.S. Pacific Fleet. 150625-N-MK341-025. <https://www.flickr.com/photos/compacflt/18966605109>
- <sup>302</sup> Army Medicine ENTs Answer Call to Provide Humanitarian Aid to Pacific Republic. Ms. Valecia Dunbar (Army Medicine) July 2, 2013, [https://www.army.mil/article/106792/Army\\_Medicine\\_ENTs\\_Answer\\_Call\\_to\\_Provide\\_Humanitarian\\_Aid\\_to\\_Pacific\\_Republic/](https://www.army.mil/article/106792/Army_Medicine_ENTs_Answer_Call_to_Provide_Humanitarian_Aid_to_Pacific_Republic/)
- <sup>303</sup> U.S. Army Soldiers Renovate Pohnpei Hospital: Under Budget and Ahead of Schedule Embassy of the United States Kolonia, Micronesia. April 17, 2013. <https://kolonia.usembassy.gov/2013-05.html>
- <sup>304</sup> Engineers assess Micronesia hospital repair. Capt. James S. Kwoun/6th Engineer Battalion. April 13, 2011. <https://www.army.mil/article/54887/engineers-assess-micronesia-hospital-repair/>

<sup>305</sup> Federated States of Micronesia and The Republic Of The Marshall Islands Fact Sheet #1, Fiscal Year (Fy) 2012. January 20, 2012 <http://reliefweb.int/sites/reliefweb.int/files/resources/01.20.12%20-%20USAID-DCHA%20FSM%20and%20RMI%20Fact%20Sheet%20%231.pdf>

<sup>306</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogres\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogres_2011-13.pdf)

<sup>307</sup> U.S. Passports & International Travel. U.S. Department of State. <https://travel.state.gov/content/passports/en/country/federated-states-of-micronesia.html>

<sup>308</sup> Embassy of the Federated States of Micronesia. <http://www.fsmembassydc.org/>

<sup>309</sup> Federated States of Micronesia Primer. October 20, 2010. Prepared by All Partners Access Network's Media Analysis and Productions (MAP) team.

<sup>310</sup> Australia-Oceania: Micronesia, Federated States of. CIA World Fact Book. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>

<sup>311</sup> U.S. Passports & International Travel. U.S. Department of State. <https://travel.state.gov/content/passports/en/country/federated-states-of-micronesia.html>

<sup>312</sup> Health Information for Travelers to the Federated States of Micronesia (Including Yap Islands, Pohnpei, Chuuk, and Kosrae). Centers for Disease Control and Prevention. <http://wwwnc.cdc.gov/travel/destinations/traveler/none/micronesia#notices>

<sup>313</sup> Health Information for Travelers to the Federated States of Micronesia (Including Yap Islands, Pohnpei, Chuuk, and Kosrae). Centers for Disease Control and Prevention. <http://wwwnc.cdc.gov/travel/destinations/traveler/none/micronesia#notices>

<sup>314</sup> Micronesia, Fed States of National Progress report on the implementation of the Hyogo Framework for Action (2011-2013)-Interim. [http://www.preventionweb.net/files/28470\\_fsm\\_NationalHFAprogres\\_2011-13.pdf](http://www.preventionweb.net/files/28470_fsm_NationalHFAprogres_2011-13.pdf)

<sup>315</sup> Government of the Federated States of Micronesia. <http://fsmgov.org/ngovt.html#EXEC>

<sup>316</sup> Jane's Sentinel Security Assessment-Oceania: Micronesia. January 14, 2015. HIS Global Limited.

<sup>317</sup> Australia-Oceania, Federated States of Micronesia, August 25, 2016. CIA World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>

<sup>318</sup> U.S. Relations with the Federated States of Micronesia. U.S. Department of State webpage. <http://www.state.gov/r/pa/ei/bgn/1839.htm>

<sup>319</sup> Secretariat of the Pacific Community Strategic Plan 2016-2020. Pacific Community 2015.

<sup>320</sup> FSM Government partners with SPC to address gap in accessing of climate change adaptation funding. Government of the Federated States of Micronesia website. February 6, 2014. <http://www.fsmgov.org/press/pr02061a.htm>

<sup>321</sup> Pacific Islands Forum Secretariat memorandum (2015), [http://www.un.org/depts/los/general\\_assembly/contributions\\_2015/PIFS.pdf](http://www.un.org/depts/los/general_assembly/contributions_2015/PIFS.pdf)

<sup>322</sup> The Framework for Pacific Regionalism (2014). <https://www.adb.org/sites/default/files/linked-documents/pacific-robp-2015-2017-sd.pdf>

<sup>323</sup> Australia-Oceania, Federated States of Micronesia, August 25, 2016. CIA World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html>



Center for Excellence in Disaster Management & Humanitarian Assistance  
456 Hornet Avenue, Joint Base Pearl Harbor - Hickam, Hawaii 96860-3503