Comprised of Chuuk, Pohnpei, Yap and Kosrae, the Federated States of Micronesia (or “FSM”) stretches from 136° to 168° East. Most of the 607 islands are volcanic islands while the rest are small coral islands. The capital city is Palikir, located in the state of Pohnpei. The economy is characterized by farming and agriculture. Tourism is an attractive source of income to the country although is limited by the remoteness of the islands. Changes to the climate impact on these important sectors.

The country has 5 major languages. English is the official language spoken by many.

Observed Climate
In the FSM there is little seasonal variation in temperature, with less than 3°F (1.5°C) between the average hottest and coolest months. The country has two seasons – a dry season from November to April and a wet season from May to October (Figure 1).

Rainfall in the FSM is affected by the movement of the Intertropical Convergence Zone. The wet season occurs when the Intertropical Convergence Zone strengthens and moves north close to the FSM. The West Pacific Monsoon also impacts rainfall, bringing additional rain during the wet season.

The FSM’s climate varies considerably from year to year due to the El Niño-Southern Oscillation. In Pohnpei, El Niño tends to result in drier conditions during the dry season, but higher than average rainfall during the wet season. La Niña tends to result in drier conditions during the dry season, but higher than average rainfall during the wet season (Figure 2).

Projected Climate
Projections for all emissions scenarios indicate that the annual average air temperature and sea surface temperature (Figure 4) will increase in the future in the FSM. By 2030, under a high emissions scenario, this increase in temperature is projected to be in the range of 0.7-1.9°F (0.4-1.0°C) in eastern FSM and 0.8-1.8°F (0.4-1.1°C) in western FSM.

Almost all the global climate models project an increase in average annual and seasonal rainfall over the course of the 21st century. However there is some uncertainty in the rainfall projections and not all models show consistent results. Droughts are projected to become less frequent throughout this century. Model projections show extreme rainfall days are likely to occur more often.

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