



Kiribati Ocean Outlook

May to July 2021



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Summary

- ❖ Sea Surface temperature (SST) for all the Kiribati group is expected to be normal for May to July 2021.
- ❖ The upwelling zone will be located over the Northern and Southern of the Gilbert and South of the Phoenix group.
- ❖ The coral bleaching outlook for the 12 weeks is on Alert 2 for the Northern and Central Gilbert group while the Southern Gilbert group is on Alert level 1. Although, the Phoenix and Line group shows no thermal stress.
- ❖ The seasonal sea level forecast for the Gilbert and Northern Line and Phoenix group is increase by 0.1m while near normal sea level at the south of the Phoenix and Line group in May to July 2021.
- ❖ Extreme spring tide falls on the 27th of May with a height of 2.83m.

Sea Surface Temperature (SST)

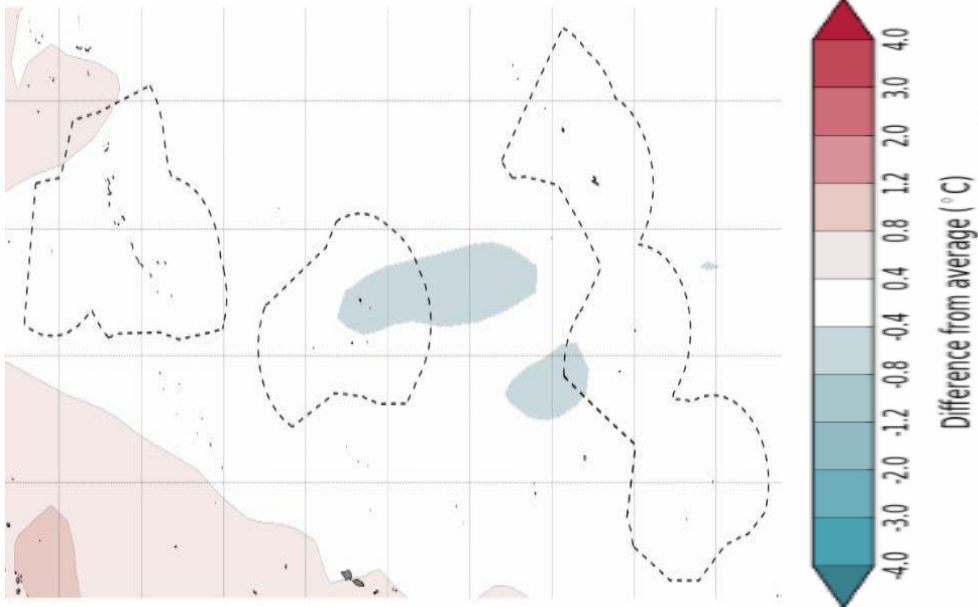


Figure 1 SST for May 2021

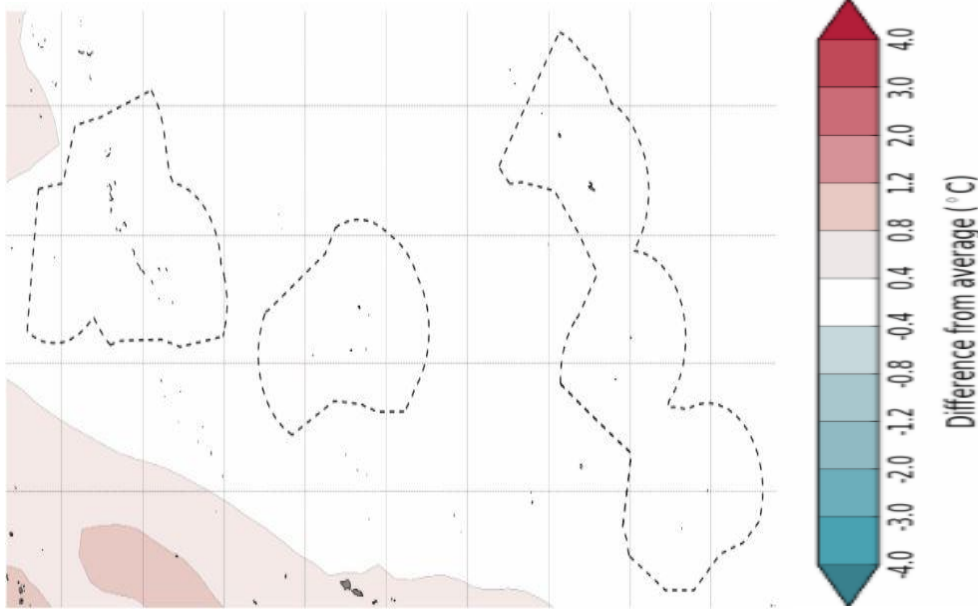


Figure 2 SST for July 2021

✓ The two images show sea surface temperature (SST) variation in the Kiribati region for the month of May to July 2021.

✓ Currently, the sea surface temperature across the Kiribati region is normal by -0.4°C to $+0.4^{\circ}\text{C}$. However, some part of the Phoenix island is cooling.

✓ Based on the two images, the sea surface temperature forecast for the Kiribati group is normal ranging between -0.4°C and $+0.4^{\circ}\text{C}$ in the next coming months.

Upwelling zone based on Sea Surface Temperature

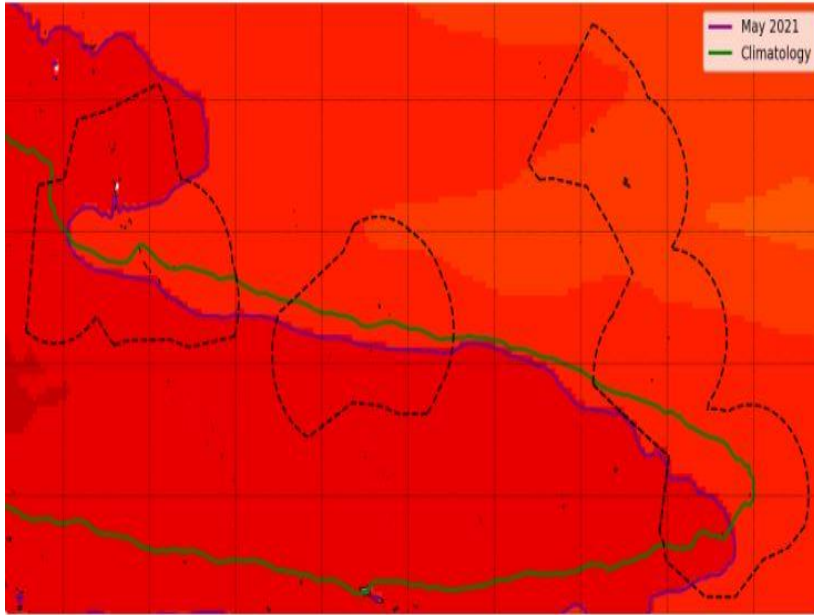


Figure 3. Upwelling zone for May 2021

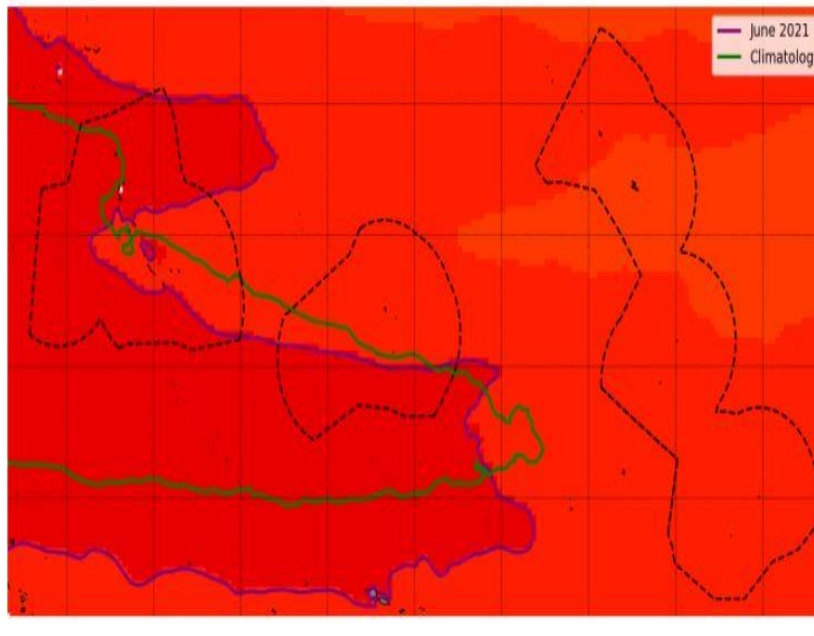
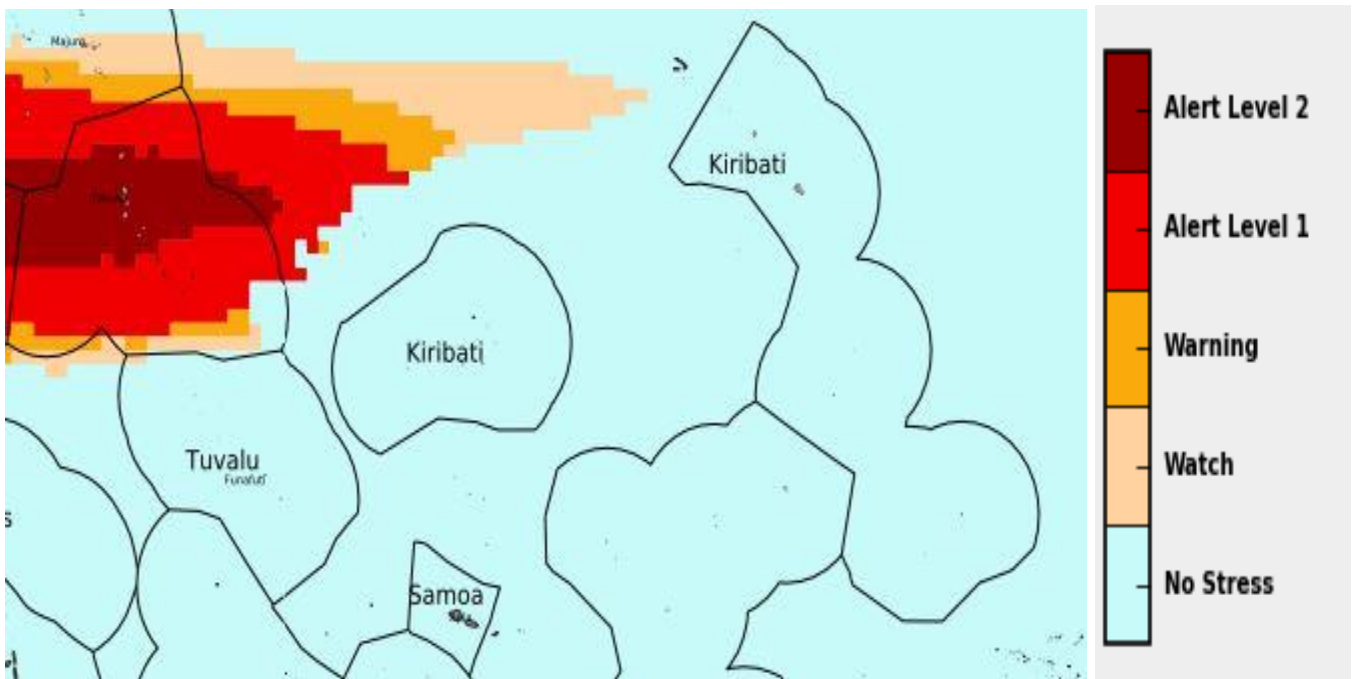


Figure 4. Upwelling zone for June 2021

- ✓ The two images show the location of the upwelling zone (purple line) expected for the month of May to July 2021 based on sea surface temperature (SST) condition.
- ✓ The upwelling zone known to be a zone rich in nutrient and might be favorable to migratory fishes such as Tuna. (need to verify with MFMRD)
- ✓ Based on the two images, the upwelling zone is projected to move westward (need to verify with MFMRD). Therefore, those areas that are crossed by this convergence (purple line) are expected to be rich in nutrients, resulting in abundant of migratory fishes which could be a particular interest for fishing vessels.

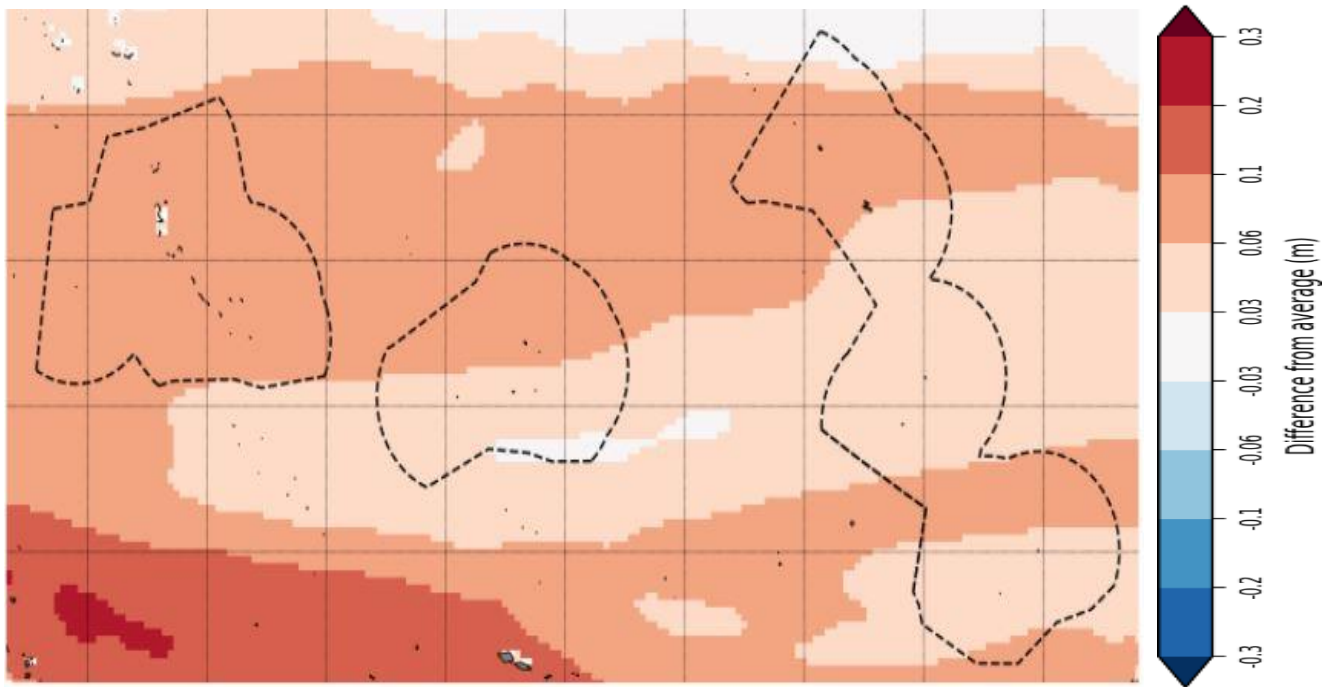
Coral Bleaching



The coral bleaching outlook for the 12 weeks (May-July) is on Alert level 2 for the Northern and Central Gilbert while Alert 1 for the Southern Gilbert group. The rest of the Kiribati group shows no thermal stress. Therefore, the public are encouraged to take more cautious in areas that are on Alert level to minimize possible impacts.

Note: This forecast is based only on the Sea surface temperature, thus verification from MFMRD on coral conditions is required. Local environmental conditions can also contribute towards the bleaching process.

Seasonal Sea Level Forecast



The seasonal sea level forecast for the Gilbert, Northern Line and Phoenix group increases by 0.1m while south of the Phoenix and Line group indicates near normal sea level for May to July 2021.

Extreme Spring Tide Prediction

Month	Date	Time	Height (m)	Moon Phase
May	26 th	0406AM	2.82	Full Moon
	27 th	0449AM	2.83	

The above table shows the extreme spring tide for the next three months. These highest tides can cause damages and inundation if associated with gusty and strong winds. Therefore, those who live along the coastal areas are encouraged to take precautionary measures to minimize possible threats.