



Climate Outlook

Historical trends on Tropical Cyclones for Samoa (period 1990 – to date)

| Date/Year | Tropical Cyclone (TC) | Category | Comment | Cost of Damage |
|-----------------|-----------------------|----------|---|----------------|
| Feb 03 - 19 | Gita | 4 | Affected Samoa from Feb 9 – 11 (Cat 1) Winds of 39 – 54 mph gust at 72mph | WST\$2.5mil |
| Apr 20 – 24 | Amos | 3 | Affected Samoa from April 21 – 24 (Cat 2) Winds of 55 – 72 mph | n/a |
| Dec 9 - 19 | Evans | 4 | Affected Samoa from Dec 11 – 15 (Cat 2) Winds of 55 – 72 mph | WST\$465mil |
| Feb 10 – 23 | Olaf | 5 | Affected Samoa from Feb 10 – 13 (Cat 1) then intensify rapidly to Cat4 as it moves east-south-east Winds of 39 – 54 mph | n/a |
| Dec 25 – Jan 12 | Heta | 5 | Affected Samoa from Jan 2 – 4 (Cat 2) Winds of 55 – 72 mph | NZ\$85mil |
| Dec 4 – 17 | Val | 4 | Affected Samoa from Dec 7 – 9 (Cat 4) Winds gust exceeding 145mph (230km/h) | WST\$700mil |
| Jan 30 – Feb 10 | Ofa | 4 | Affected Samoa from Feb 1 – 4 (Cat 3) Winds gust exceeding 95mph (150km/h) | WST\$300mil |

| Season | Baseline(30 years 1981-2010) | Actual | Comment | Responsible Ministry |
|--------|---------------------------------|--------|---------|-------------------------|
|--------|---------------------------------|--------|---------|-------------------------|

Tropical Depressions(TD) (SW Pacific Region: 160°E – 120°W and 0° to 25°S)

| | | | | |
|---------------------|--|--|---|----------|
| 2018-2019 Season | 13 Tropical Depres- sions were moni- tored for the 2018/19 season | Sep 2018: 1 TD Nov 2018: 1 TD Dec 2018: 3TD Jan 2019: None Feb 2019: 6 TD Mar 2019: 0 Apr 2019: 0 Off Season May 2019: 2 | Sep 2018: TD01F Nov 2018:TD02F Dec 2018: TD03F, TD04F, TD05F Feb 2019: TD06F, TD07F, TD08F, TD09F, TD10F, TD11F Mar 2019: 0 April 2019: 0 May 2019: TD12F, Ann (develop east of Solomon Islands and moved into Australia region during May 10th) Total of 13 Tropical Depression developed within the region. | MNRE/MET |
|---------------------|--|--|---|----------|

Tropical Cyclones (TC) (SW Pacific Region: 160°E – 120°W and 0° to 25°S)

| | | | | |
|---------------------|--|---|---|----------|
| 2018-2019 Season | 7-11 named TC from Nov 2018 – April 2019 | Sep 2018: 1 Nov 2018: None Dec 2018: 1 Jan 2019: None Feb 2019: 3 Mar 2019: 0 Apr 2019: 0 | Sep 2018: TC Liua (TD01F) Dec 2018: TC Mona (TD04F) Feb 2019: TC Neil (TD07F) TC Oma (TD09F) TC Pola (TD11F) Total of 5 named Tropical Cyclone (TC) developed in our region so far for 2018/19 season. Note - TC Liua developed in September prior to the official start of the TC season i.e. Nov 2018 – April 2019. | MNRE/MET |
|---------------------|--|---|---|----------|

Climate Change Mitigation

| (i) Electricity/ Renewable Energy | Total(tCO2e) Jan-Aug 2019 | Total (kWh) Jan-Aug 2019 | %Electricity Generation | Responsible Agency |
|---|---|-----------------------------|-------------------------|-----------------------|
| Hydro | 16,317,056.97 | 26,759,973.43 | 30.9% | EPC |
| Wind | 50,487.80 | 82,800.00 | 0.1% | EPC |
| Solar | 7,038,855.91 | 11,543,723.70 | 13.3% | EPC |
| Biomass | Afolau Biomass Gasification Plant construction commenced in July 2019 Commission of the plant is schedule for 5th Dec 2019 | | | STEC |

mm- millimeters
mph- miles per hour
TD- Tropical Depression

Ha - hectares
C - Degrees Celsius
Kwh – kilowatt hour
tCO2e- carbon equivalent

Sq.km - square kilometres
TC- Tropical Cyclone
c-ton - carbon tonne



Climate Change Mitigation

| (ii) LTA - Transport Sector | Baseline 2017 | Current total # of cars 2019 | Comment | Responsible Ministry |
|---|---|---|---|----------------------|
| # of vehicles and total GHG emission from transport sector. | 23,323 | 15,630 | New and renewed registered vehicles with LTA from January – July 2019 | LTA |
| (iii) Ocean Carbon sink | EEZ – 120,000 sq. km | | Draft Samoa's Ocean Strategy | MOF |
| (iv) Forestry Forest Cover | Baseline 2017 | Actual | Comment | |
| MNRE 2015 – 24/8/2019 (Two Million Tree Planting Campaign) | National Forest Inventory Report 2017 165,048.89ha (58%) 45,736,227 c-ton | 412,236 trees planted/dispatched 421.22 ha (0.15%) - area planted 116,717.5 c-ton | 358,592 trees planted/dispatched – MNRE (3,235 trees planted during the 2weeks Pacific Games) 53,644 seedlings planted/dispatched – Private & Communities Area not compatible with trees planted as data on area was not possible to collect | MNRE MOF |

Climate Change Governance

| Activity | Yes/No | Timeframe | Status | Responsible Agency |
|--|--------|-------------|-----------|------------------------|
| Climate Change Bill | No | | Draft | MNRE |
| National Climate Change Strategy | | 2019- 2029 | Draft | MNRE |
| Community Integrated Management Plans (CIM) 43 Plans | Yes | 2019 – 2029 | Completed | MNRE /All Stakeholders |

International obligation to UNFCCC

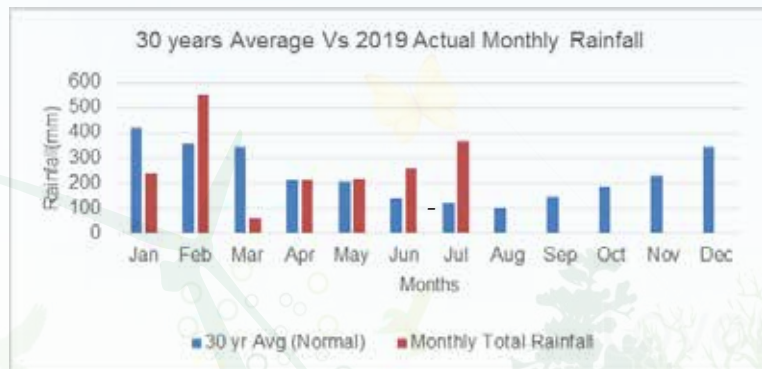
| | | |
|--|--------------|------|
| Samoa's 3rd National Communication Report -National Circumstances -National GHG Inventory -Vulnerability & Adaptation Assessment Development the First Biennial Update Report (BUR) on Climate Change / Knowledge Management M & E | October 2019 | MNRE |
|--|--------------|------|

Climate Change Financing

| NATIONAL PROJECTS | | | | | |
|---|--|-----------------|---------------------------------------|-----------------|--------------------|
| Partner/Source | Project Title / Grant | Amount (USD) | Status (% of Delivery) June -Aug 2019 | Remaining Funds | Responsible Agency |
| Global Environment Facility | SMSMCL(2015-2020) | \$4,736,363.00 | \$3,694,363.00 / 82% | \$38,101.05 | MNRE/Mof |
| | EWACC (2015-2021) | \$12,322,936.00 | \$7,886,679.00 / 64% | \$4,436,257.00 | MNRE/MOF |
| | IMPRESS (2017-2022) - | \$6,125,828.00 | \$3,128,002.10 / 51% | \$2,997,825.70 | MNRE/MoF |
| Green Climate Fund | Component 2.2 (2017 -2023) | \$8,884,700.00 | 1,484,677.00 / 17% | \$6,959,301.00 | MoF/ MNRE |
| IDA/World Bank Climate Investment Funds | ECR/PPCR project (2013-2020) | \$14,600,000.00 | \$7,423,507.15 / 53% | \$7,176,492.85 | MoF/MNRE |
| REGIONAL PROJECTS | | | | | |
| Global Environment Facility | Ridge to Reef R2R (2016-2019) | \$200,000.00 | 117371.47 / 60% | \$82,628.53 | MNRE |
| IDA/World Bank | Pacific Resilience Project PRP (2016-2022) | \$16,293,000.00 | \$4,026,423.25.00 / 25% | \$12,266,576.75 | MNRE/MOF |

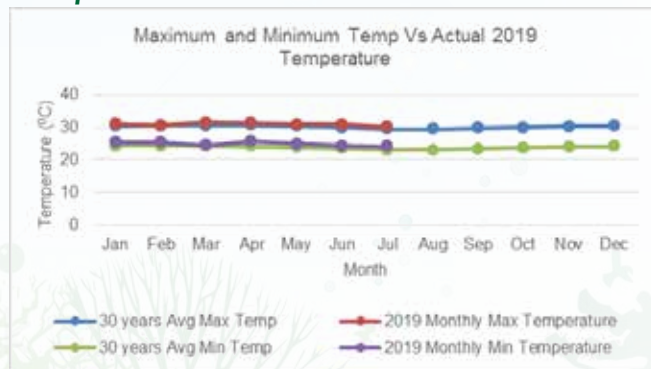
ANNEX 1 Climate Outlook

Rainfall



Above average rainfall registered for Apia station for the month of July. This is the wettest July on record.

Temperature



Warmer temperatures were recorded for the month of July in comparison with its 30 years average.

Sea Level Rise (not applicable - long term)

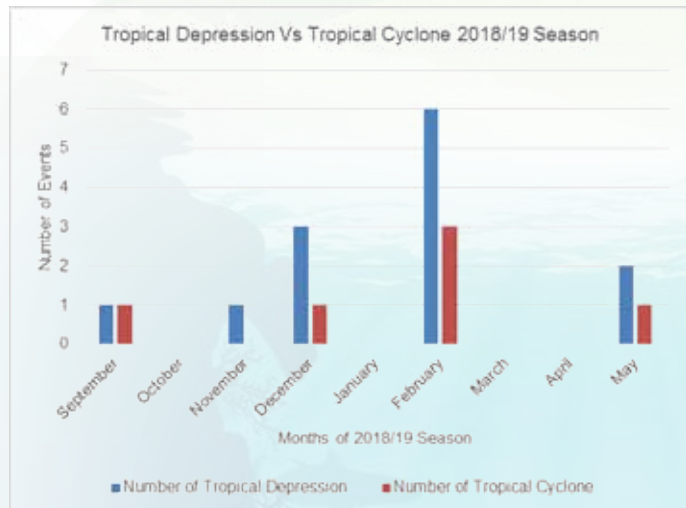
Month - Jan-19

Baseline - 4mm/yr

Actual - 4.5mm/yr

From Samoa tide gauge data – note also Geo-science Australia is continuing to monitor the earth movement to correct sea level rise

Tropical Depressions(TD) (SW Pacific Region: 160°E – 120°W and 0° to 25°S)

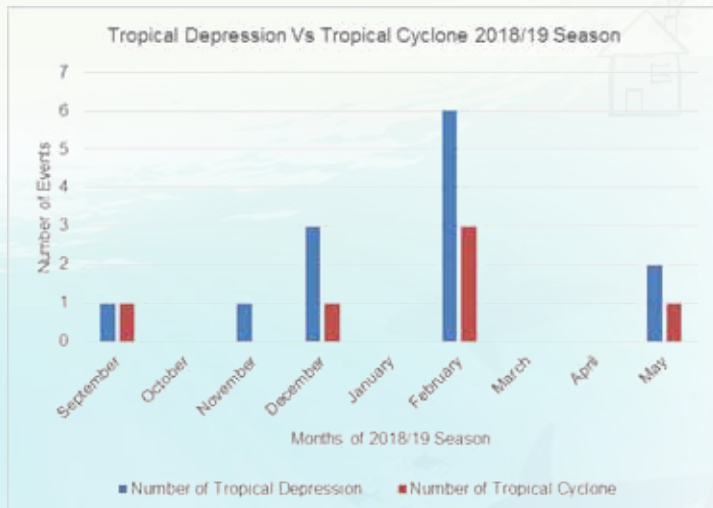


Sep 2018: TD01F Nov 2018:TD02F
Dec 2018: TD03F, TD04F, TD05F

Feb 2019: TD06F, TD07F, TD08F,
TD09F, TD10F, TD11F Mar 2019:0
April 2019: 0

May 2019: TD12F, Ann (develop east of Solomon Islands and moved into Australia region during May 10th)

Tropical Cyclones (TC) (SW Pacific Region: 160°E – 120°W and 0° to 25°S)



Sep 2018: TC Liua (TD01F) Dec 2018: TC Mona (TD04F) Feb 2019: TC Neil (TD07F) TC Oma (TD09F) TC Pola (TD11F)
Total of 5 named Tropical Cyclone (TC) developed in our region so far for 2018/19 season.

Note, TC Liua developed in September prior to the official start of the TC season i.e Nov 2018 – April 2019.