15 AUGUST 2025

GBON National Gap Analysis

Systematic Observations Financing Facility

Weather and climate data for resilience

WEATHER CLIMATE WATER

Screening of the National Gap Analysis (NGA) of Republic of Mauritius

WMO Technical Authority screens the GBON National Gap Analysis to ensure consistency with the GBON regulations and provides feedback for revisions as needed. *The screening of the NGA is conducted according to the SOFF Operational Guidance Handbook, version: 04.07.2023 and the provisions in Decision 5.7 of the SOFF Steering Committee.*

Following iterations with the peer advisor and beneficiary country, WMO Technical Authority confirms that the National Gap Analysis is consistent with GBON regulations.

Date: 21/08/2025

Signature:

Albert Fischer

Director, WIGOS Branch, Infrastructure Department, WMO

GBON National Gap Analysis Report
Republic of Mauritius

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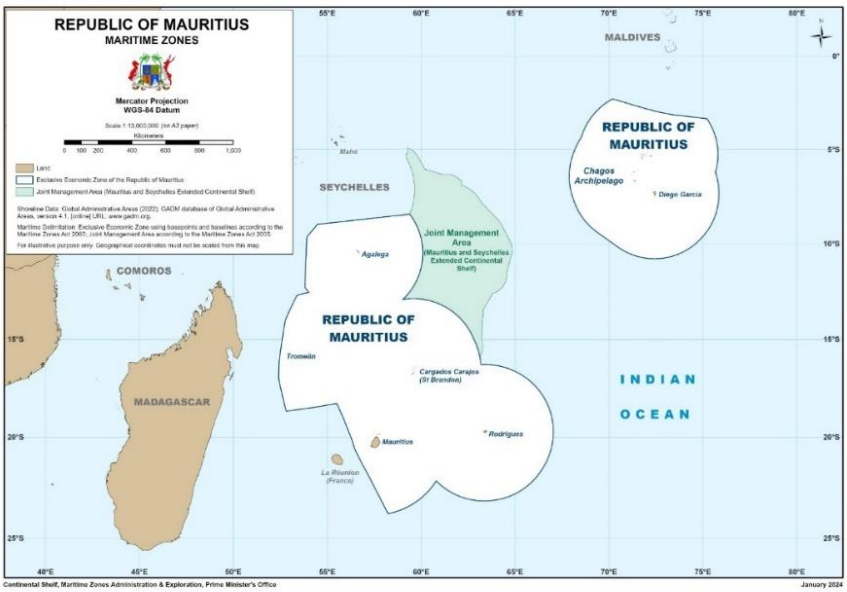
1. Country information from the GBON Global Gap Analysis

Mauritius, the main island of the Republic of Mauritius, has a land coverage that spans approximately 2,040 square kilometres, with a diverse landscape that includes mountains, forests, rivers, and beaches. The highest point is the Piton de la Petite Rivière Noire, which reaches an elevation of 828 meters. Mauritius has a significant amount of arable land, estimated at 38.4%, which supports various agricultural activities. Permanent crops cover around 2% of the land, reflecting the importance of agriculture in the country's economy and culture. The remaining land is a mix of permanent pastures and other uses, including urban areas and infrastructure.

Beyond the main island, the Republic of Mauritius encompasses several outer islands, each with its own unique charm. Rodrigues Island, for example, lies approximately 560 kilometres east of the main island and is celebrated for its serene beauty and rich marine life. The two islands of Agaléga, situated about 1,000 kilometres north of Mauritius. Saint Brandon, also known as Cargados Carajos, is an archipelago consisting of over 50 small islands, located about 430 kilometres northeast of Mauritius. Chagos Archipelago, including Diego Garcia, is almost at the centre of the Indian Ocean.

The sovereignty of Mauritius extends to these outer islands, which are managed under the aegis of the Prime Minister's Office through the Outer Islands Development Corporation. The country's Exclusive Economic Zone (EEZ) covers approximately 2.3 million square kilometres of the Indian Ocean, reflecting the importance of maritime resources to the nation's economy and identity. Some areas of the territorial waters are jointly managed with the Seychelles.



Mauritius' efforts in climate, meteorology, and sustainable development are a testament to small island nations' proactive stance to combat the adverse effects of climate change. The Mauritius Meteorological Services (MMS), as per the Mauritius Meteorological Services Act 2019, is the official authority on weather and climate monitoring within the Republic of Mauritius. It is mandated to provide services ranging from advisories and warnings for extreme events such as tropical storms, cyclones, heavy rains, floods, and droughts. The MMS therefore monitors the evolution of weather patterns in the Southwest Indian Ocean for all hydro-meteorological events on a 24/7 basis. It also provides early warnings for tsunamis based on advisories received from Tsunami Service Providers: Australia, India and Indonesia. These services are essential for disaster risk reduction and enable the government and the public to take proactive measures to mitigate the impacts of adverse weather conditions.

The MMS's functions extend to the aviation sector, where it provides essential meteorological information for the safety of air navigation within the Mauritius Flight Information Region (FIR) as required by the International Civil Aviation Organisation (ICAO). Additionally, the MMS contributes to maritime safety through its services for the METAREA VIII (S), a geographical sea region of the South Indian Ocean designated for transmitting meteorological safety information to mariners under the Global Maritime Distress Safety System (GMDSS).

The MMS also plays a pivotal role in global climate monitoring efforts, aiding in understanding and mitigating the impacts of climate change. These activities encompass the broader scope of climate services, including collecting and disseminating of climate information and products derived from this data, crucial for various sectors such as agriculture, fisheries, and tourism sectors that are highly dependent on weather patterns and climate conditions.

In fulfilling its mandate under the MMS Act 2019, the MMS operates under the aegis of the Prime Minister’s Office and works in collaboration with international bodies such as the World Meteorological Organisation (WMO), the International Civil Aviation Organisation (ICAO), the UNESCO Intergovernmental Oceanographic Commission (IOC) and Intergovernmental Panel on Climate Change (IPCC). This international cooperation ensures that the MMS stays at the forefront of meteorological science and provides the most accurate, and up-to-date weather-related information to all its stakeholders and the public in general. This is evident in MMS’s continuous efforts to improve its services and infrastructure, which include the adoption of new technologies for data collection and analysis, enhancing the accuracy of forecasts, and expanding its outreach activities to ensure that the citizens of the Republic of Mauritius have access to timely and reliable weather information.

The Global Basic Observing Network (GBON) is a key initiative of the World Meteorological Organization (WMO). GBON aims to radically improve the international exchange of observational data which is crucial for accurate weather, climate, and water services. This network is designed to fill in the gaps in global observations, particularly in regions where data are not frequently exchanged or are unavailable.

The WMO conducted a Global Basic Observing Network (GBON) gap analysis for Mauritius in June 2023. The table below shows the results of the gap analysis with the baseline and assessment of the status of the observational data exchange in Mauritius measured against GBON requirements. This provides an estimate of the number of surface and upper-air stations needed to meet the GBON requirements. The Target indicates the total number of stations needed, the Reporting denotes how many stations are reporting, and the Gap is the total of stations that are reporting, stations to be improved, or those that are newly installed, respectively.

The preliminary results from the assessment conducted in June 2023 indicate that Mauritius has one GBON-compliant surface station and that there is a need to improve five stations and install three new surface land stations. Concerning the GBON requirement for upper-air stations, Mauritius needs to improve one upper-air station and install two new upper-air stations.

Table I. WMO GBON Global Gap Analysis (June 2023). Illustration of the information that the WMO Secretariat provides to each country

A. GBON horizontal resolution requirements	B. Target	C. Reporting (GBON compliant)[1]	D. Gap to improve	E. Gap new	F. Gap total
Surface stations Standard density[2] 200 km	9	1	5	3	8
Upper-air stations over land Standard density[2] 500km	3	0	1	2	3

[1] The rationale for classifying surface and upper-air stations as reporting is based on the WIGOS Data Quality Monitoring System (WDQMS) for the chosen time-period (WMO GBON Global Gap analysis, June 2023). Stations with data availability more than 80% on at least 80% of days, are considered as reporting. Other listed stations are counted as having the possibility to be improved.

[2] For SIDS, for the WMO GBON Global Gap Analysis in June 2023, the EEZ area has been added to the total surface area which is the basis for the target number of stations. The standard density requirements for SIDS have been calculated with 500 km for surface stations and 1000 km for upper-air stations.

2. Analysis of existing GBON stations and their status against GBON requirements

The Mauritius Meteorological Services (MMS) operates and maintains a network of 55 surface land stations that consists of 31 Automatic Weather Stations (AWS), nine Automatic Rainfall Stations (ARS) and 14 manual (climate) stations. All surface land stations except Bel Ombre and St. Brandon (Raphael Island) are operational. Furthermore, MMS has one upper-air radiosonde station at Vacoas that performs one ascent per day at 12h00UTC.

The table below shows the basic station metadata of the existing stations.

#	Station name	WIGOS-ID	Station type	Station sub-type	Ownership	Latitude	Longitude	Elevation (m)	Deployment date	Declared reporting status
1	AGALEGA	0-20000-0-61974	S	MANUAL	NMHS	-10.3833	56.6	3	1951-01-01	Operational
2	ALBION		S	AWS	NMHS	-20.3374	57.7001	147	2015-06-09	Operational
3	ALMA		S	MANUAL	NMHS	-20.24	57.5666	451	1873	Operational
4	BAGATELLE		S	AWS	NMHS	-20.2459	57.5179	400	2023-09-07	Operational
5	BAMBOUS VERIEUX		S	ARS	NMHS	-20.3328	57.7472	425	2021-07-28	Operational
6	BEAU BASSIN		S	AWS	NMHS	-20.2264	57.4619	213	2014-11-10	Operational
7	BEAU VALLON COUR		S	MANUAL	NMHS	-20.42	57.6933	21	1865	Operational
8	BEL OMBRE		S	MANUAL	NMHS	-20.5016	57.4066	8	1886	Closed
9	BELL VILLAGE		S	AWS	NMHS	-20.1724	57.4843	31	2016-03-16	Operational
10	BELLE MARE		S	AWS	NMHS	-20.1829	57.7726	12	2010-09-20	Operational
11	BOIS MANGUES		S	ARS	NMHS	-20.0668	57.5881	140	2019-03-20	Operational
12	BRITANNIA		S	MANUAL	NMHS	-20.4516	57.5566	229	1869	Operational
13	CHAMP DE MARS		S	AWS	NMHS	-20.1692	57.5111	23	2013-10-08	Operational
14	CHITRAKOOT		S	ARS	NMHS	-20.1867	57.545	240	2022-07-04	Operational
15	CITRONELLE -R		S	AWS	NMHS	-19.6967	63.4413	339	2018-10-03	Operational
16	CONSTANCE		S	MANUAL	NMHS	-20.1783	57.7066	40	1865	Operational
17	D. LES PAILLES		S	AWS	NMHS	-20.195	57.4883	74	2020-07-27	Operational
18	FUEL		S	MANUAL	NMHS	-20.2116	57.6833	146	1881	Operational

#	Station name	WIGOS-ID	Station type	Station sub-type	Ownership	Latitude	Longitude	Elevation (m)	Deployment date	Declared reporting status
19	GRAND BASSIN		S	AWS	NMHS	-20.4167	57.4933	670	29/01/2018	Operational
20	GROS CAILLOUX		S	ARS	NMHS	-20.2121	57.4298	96	2024-05-13	Operational
21	LABOURDONNAIS		S	MANUAL	NMHS	-20.0671	57.6083	73	1862	Operational
22	LE MORNE		S	AWS	NMHS	-20.4483	57.3179	3	2024-05-17	Operational
23	MARE AUX VACOAS		S	ARS	NMHS	-20.3833	57.4833	569	2020-01-21	Operational
24	MEDINE		S	MANUAL	NMHS	-20.2583	57.3883	91	1904	Operational
25	MOKA		S	ARS	NMHS	-20.2237	57.5012	331	2021-10-27	Operational
26	MON LOISIR ROUILLARD		S	ARS	NMHS	-20.0333	57.6167	50	2023-10-06	Operational
27	MON LOISIR SUGAR ESTATE		S	AWS	NMHS	-20.3059	57.5337	__	2022-07-21	Operational
28	Mt DU SABLE -R		S	AWS	NMHS	-19.7061	63.3904	113	2018-10-05	Operational
29	N. DECOUVERTE		S	AWS	NMHS	-20.1833	57.5833	488	2001-09-25	Operational
30	PAMPLEMOUSSES		S	AWS	NMHS	-20.1049	57.58	75	2018-08-09	Operational
31	PATATETHEOPHILE -R		S	AWS	NMHS	-19.706	63.4971	166	2015-12-11	Operational
32	PLAINE CORAIL (RODRIGUES)	0-20000-0-61989	S	MANUAL	NMHS	-19.75	63.3666	30	2010-01-01	Operational
33	PLAINE CORAIL -R		S	AWS	NMHS	-19.7555	63.3601	33	2018-10-02	Operational
34	PLAISANCE		S	AWS	NMHS	-20.4334	57.6787	50	2023-10-18	Operational
35	PLAISANCE (MAURITIUS)	0-20000-0-61990	S	AWS	NMHS	-20.4344	57.6836	55	2016-05-31	Operational
36	POINTE AUX CANNONIERS		S	AWS	NMHS	-20.0057	57.5684	18	2023-08-30	Operational
37	PORT LOUIS		S	AWS	NMHS	-20.1667	57.5	6	1998-06-12	Operational
38	PROVIDENCE		S	ARS	NMHS	-20.248	57.6123	401	2020-07-20	Operational
39	QUATRE SOEURS		S	AWS	NMHS	-20.3027	57.7758	22	2022-02-24	Operational
40	QUEEN VICTORIA		S	AWS	NMHS	-20.2172	57.701	112	2001-10-16	Operational
41	RICHE EN EAU		S	AWS	NMHS	-20.385	57.6567	124	2017-07-16	Operational
42	RICHE TERRE		S	AWS	NMHS	-20.1351	57.5153	21	2016-06-06	Operational
43	RIVIERE BANANE-R		S	AWS	NMHS	-19.6784	63.4737	2	2023-03-03	Operational
44	RIVIERE DES ANGUILLES		S	AWS	NMHS	-20.5022	57.5637	90	2021-11-08	Operational
45	RIVIERE NOIRE		S	AWS	NMHS	-20.3623	57.3713	3	2015-03-11	Operational

#	Station name	WIGOS-ID	Station type	Station sub-type	Ownership	Latitude	Longitude	Elevation (m)	Deployment date	Declared reporting status
46	RODRIGUES (POINT CANON)	0-20000-0-61988	S	MANUAL	NMHS	-19.6833	63.4166	58	1931-01-01	Operational
47	ROSE BELLE		S	AWS	NMHS	-20.4052	57.6088	250	2013-10-10	Operational
48	SIGNAL MOUNTAIN		S	AWS	NMHS	-20.174	57.4923	297	2016-12-20	Operational
49	SONGES-R		S	AWS	NMHS	-19.7432	63.4486	64	2023-03-02	Operational
50	ST. ANTOINE		S	MANUAL	NMHS	-20.0405	57.6516	30	1874	Operational
51	ST. BRANDON (RAPHAEL ISLAND)	0-20000-0-61986	S	MANUAL	NMHS	-16.45	59.6166	2	1951-01-01	Silent
52	ST. FELIX		S	AWS	NMHS	-20.5064	57.4685	24	2019-09-01	Operational
53	VACOAS (MAURITIUS)	0-20000-0-61995	S	MANUAL	NMHS	-20.2975	57.4947	423	1951-01-01	Operational
54	VACOAS (MAURITIUS)	0-20000-0-61995	UA	RADIOSONDE	NMHS	-20.298	57.4947	423	1951-01-01	Operational
55	WOOTON		S	ARS	NMHS	-20.3028	57.5354	540	2021-12-13	Operational

The table below shows the results of the technical assessment of the existing stations

#	Station name	Station type	Station sub-type	Ownership (NMHS/3rd party)	Funding source	GBON variable measured							Data transfer protocol -MQTT (Y/N)	Reporting cycle (obs/day)	Intended for international data exchange (Y/N)	GBON Compliant (Y/N)
						SLP	T	H	W	P	SD	SST				
1	AGALEGA	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	7	Y	N
2	ALBION	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
3	ALMA	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
4	BAGATELLE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
5	BAMBOUS VERIEUX	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
6	BEAU BASSIN	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
7	BEAU VALLON COUR	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
8	BEL OMBRE	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
9	BELL VILLAGE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
10	BELLE MARE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
11	BOIS MANGUES	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
12	BRITANNIA	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
13	CHAMP DE MARS	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
14	CHITRAKOOT	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
15	CITRONELLE -R	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
16	CONSTANCE	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
17	D. LES PAILLES	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
18	FUEL	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
19	GRAND BASSIN	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
20	GROS CAILLOUX	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
21	LABOURDONNAIS	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
22	LE MORNE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
23	MARE AUX VACOAS	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
24	MEDINE	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N

#	Station name	Station type	Station sub-type	Ownership (NMHS/3rd party)	Funding source	GBON variable measured							Data transfer protocol -MQTT (Y/N)	Reporting cycle (obs/day)	Intended for international data exchange (Y/N)	GBON Compliant (Y/N)
						SLP	T	H	W	P	SD	SST				
25	MOKA	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
26	MON LOISIR ROUILLARD	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
27	MON LOISIR SUGAR ESTATE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
28	Mt DU SABLE -R	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
29	N. DECOUVERTE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
30	PAMPLEMOUSSES	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
31	PATATETHEOPHILE -R	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
32	PLAINE CORAIL (RODRIGUES)	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A		N	7	Y	N
33	PLAINE CORAIL -R	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
34	PLAISANCE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
35	PLAISANCE (MAURITIUS)	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A		N	24	Y	N
36	POINTE AUX CANNONIERS	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
37	PORT LOUIS	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
38	PROVIDENCE	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N
39	QUATRE SOEURS	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
40	QUEEN VICTORIA	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
41	RICHE EN EAU	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
42	RICHE TERRE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
43	RIVIERE BANANE-R	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
44	RIVIERE DES ANGUILLES	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
45	RIVIERE NOIRE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
46	RODRIGUES (POINT CANON)	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A		N	7	Y	N
47	ROSE BELLE	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
48	SIGNAL MOUNTAIN	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
49	SONGES-R	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
50	ST. ANTOINE	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N

#	Station name	Station type	Station sub-type	Ownership (NMHS/3rd party)	Funding source	GBON variable measured							Data transfer protocol -MQTT (Y/N)	Reporting cycle (obs/day)	Intended for international data exchange (Y/N)	GBON Compliant (Y/N)
						SLP	T	H	W	P	SD	SST				
51	ST. BRANDON (RAPHAEL ISLAND)	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A		N	0	Y	N
52	ST. FELIX	S	AWS	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	0	N	N
53	VACOAS (MAURITIUS)	S	MANUAL	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	N	7	Y	N
54	VACOAS (MAURITIUS)	UA	RADIOSONDE	NMHS	NMHS	Y	Y	Y	Y	N/A	N/A	N/A	N	1	Y	N
55	WOOTON	S	ARS	NMHS	NMHS	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	0	N	N

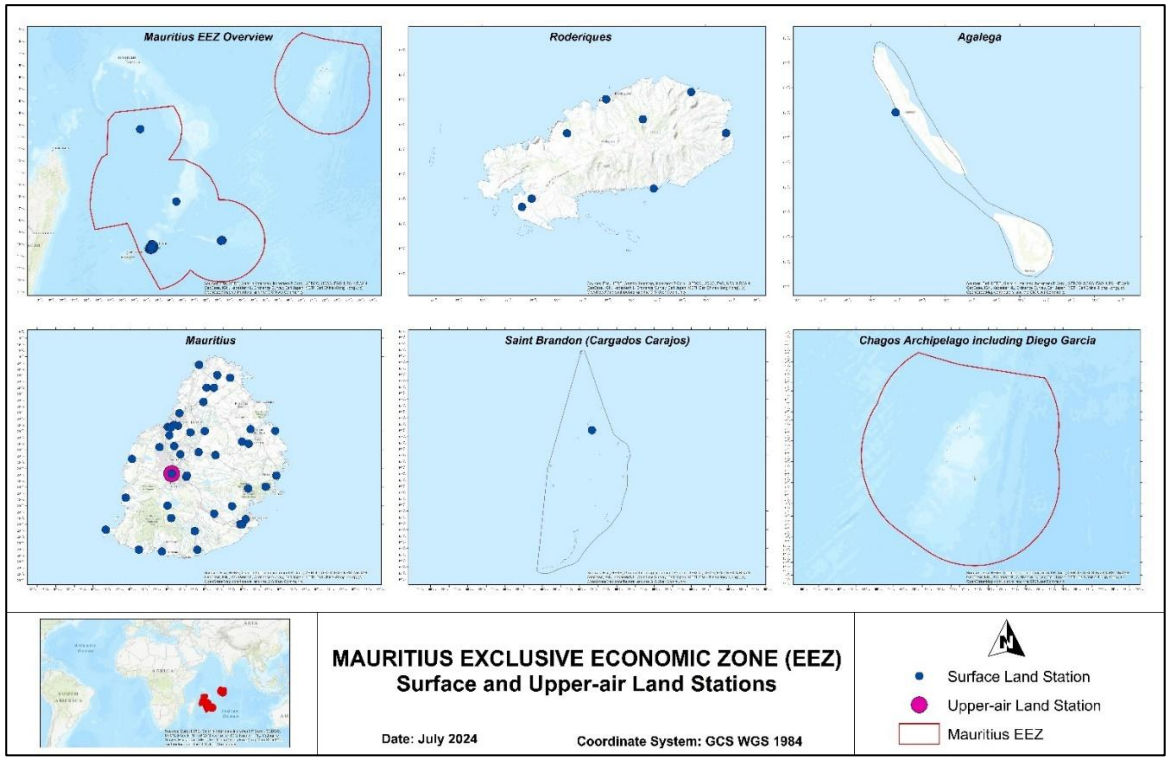


Table II. Assessment of existing stations per their operational status and network ownership

GBON Requirements	Existing observation stations (# of stations)			
	NMHS network		Third-party network	
	Reporting (GBON compliant) [3]	To improve	Reporting (GBON compliant) [3]	To improve
Surface land stations Standard density [4] 200km Variables: SLP, T, H, W, P, SD	**1**	**44**	**0**	**0**
Upper-air stations operated from land Horizontal resolution[4]: 500km Vertical resolution: 100m, up to 30 hPa Variables: T, H, W	**0**	**1**	**0**	**0**
Surface marine stations in Exclusive Economic Zones:[7] 500 km Variables: SLP, SST				
Upper-air stations operated in Exclusive Economic Zones:[5] 1000 km Vertical resolution: 100m, up to 30 hPa Variables: T, H, W				

[3] The rationale for classifying surface and upper-air stations as reporting is based on the WIGOS Data Quality Monitoring System (WDQMS) for the chosen time-period during the development of National Gap Analysis Stations with data availability more than 80% on at least 80% of days, are considered as reporting. Other listed stations are counted as having the possibility to be improved.

[4] For SIDS, for the WMO GBON Global Gap Analysis in June 2023, the EEZ area has been added to the total surface area which is the basis for the target number of stations. The standard density requirements for SIDS have been calculated with 500 km for surface stations and 1000 km for upper-air stations.

[5]Although GBON marine stations and stations in EEZ are not part of initial SOFF scope, peer advisors are encouraged to analyze in this step when considered relevant e.g. SIDS, the status of current marine stations for future GBON marine observations investments.

Table III. Assessment of existing GBON stations per station characteristics. Station type: S: Surface, UA: Upper-Air; M: Marine; Owner of the station: NMHS or name of third-party; GBON variables: SLP: Atmospheric pressure; T: Temperature; H: Humidity; W: wind; P: Precipitation; SD: Snow depth; SST: Sea surface temperature; Reporting cycle: Number of observation reports exchanged internationally per day (0-24); GBON compliance: whether the station is GBON compliant or not (see GBON guide on compliance criteria).

Station name	Station type (S/UA/M[6])	Owner (NMHS/3rd party)	Funding source	GBON variable measured							Reporting cycle (obs/day)	GBON Compliant (Y/N)
				SLP	T	H	W	P	SD	SST		
AGALEGA	S	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	7	N
PLAINE CORAIL (RODRIGUES)	S	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	7	N
PLAISANCE (MAURITIUS)	S	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	24	N
RODRIGUES (POINT CANON)	S	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	7	N
ST. BRANDON (RAPHAEL ISLAND)	S	NMHS	NMHS	N	N	N	N	N	N/A	N	0	N
VACOAS (MAURITIUS)	S	NMHS	NMHS	Y	Y	Y	Y	Y	N/A	N	7	N
VACOAS (MAURITIUS)	UA	NMHS	NMHS	Y	Y	Y	Y	N/A	N/A	N/A	1	N

[6] Please see guidance on marine stations in Section 2 on Scope.

3. Results of the GBON National Gap Analysis

The technical and local assessment of the Mauritius GBON stations indicated the need for the rehabilitation of Pamplemousses and Plaisance (Mauritius) surface land stations. The remaining eight stations will be upgraded from Manual stations to Automatic Weather Stations that meet the GBON technical requirements. The additional stations, Fuel, Medine, and Pamplemousses will cover the eastern, western and northern regions of the main island of Mauritius respectively. These additional stations are affiliated with the WMO Centennial Observing Network.

The GBON Upper-air network will require the rehabilitation of the upper-air station at Vacoas (Mauritius) and the installation of four new upper-air stations at Agalega and Diego Garcia. Agalega and Deigo Garcia are not currently designated as UNESCO World Heritage Sites.

The tables below depict the reasons for the rehabilitation or the installation of new surface land and upper-air stations.

Table: Surface land stations

#	Station name	Station type	Current station sub-type	Status	Station gap type	Remarks
1	AGALEGA	S	Manual	Operational	New	Automation. Phasing out mercury-containing instruments
2	FUEL	S	Manual	Operational	New	Automation. Phasing out mercury-containing instruments
3	PAMPLEMOUSSES	S	AWS	Operational	To improve/rehabilitate	Upgrade from FTP to MQTT/SMTP data transfer protocol
4	PLAINE CORAIL (RODRIGUES)	S	Manual	Operational	New	Automation. Phasing out mercury-containing instruments
5	PLAISANCE (MAURITIUS)	S	AWS	Operational	To improve/rehabilitate	Upgrade from FTP to MQTT/SMTP data transfer protocol
6	RODRIGUES (POINT CANON)	S	Manual	Operational	New	Automation. Phasing out mercury-containing instruments
7	ST. BRANDON (RAPHAEL ISLAND)	S	Manual	Silent	New	Automation. Phasing out mercury-containing instruments
8	VACOAS (MAURITIUS)	S	Manual	Operational	New	Automation. Phasing out mercury-containing instruments
9	DIEGO GARCIA	S	n/a	Planned	New	New deployment

Table: Upper-air land stations

#	Station name	Station type	Current station sub-type	Status	Station gap	Remarks
1	AGALEGA	UA	n/a	Planned	New	New deployment
2	DIEGO GARCIA	UA	n/a	Planned	New	New deployment
3	VACOAS (MAURITIUS)	UA	Radiosonde	Operational	To improve/rehabilitate	Improve temporal resolution.

The table below shows the GBON stations per affiliation to WMO Program/Network affiliation

#	Station name	WIGOS-ID	Station type	Date Established	Program/Network affiliation
1	AGALEGA	0-20000-0-61974	S/UA	1951-01-01	GBON: Planned, GOS General: Operational
2	DIEGO GARCIA	To be registered in OSCAR/Surface	S/UA	Planned	GBON: Planned
3	FUEL	To be registered in OSCAR/Surface	S	1881	Centennial station, GBON: Planned
4	PAMPLEMOUSSES	To be registered in OSCAR/Surface	S	1862	Centennial station, GBON: Planned
5	PLAINE CORAIL (RODRIGUES)	0-20000-0-61989	S	2010-01-01	GBON: Planned, GOS General: Operational, RBCN - deprecated: Closed, RBON: Operational, RBSN(S) - deprecated: Closed
6	PLAISANCE (MAURITIUS)	0-20000-0-61990	S	2016-05-31	CLIMAT(C) - deprecated: Closed, GBON, GSN: Operational, RBCN - deprecated: Closed, RBON: Operational, RBSN(S) - deprecated: Closed
7	RODRIGUES (POINT CANON)	0-20000-0-61988	S	1931-01-01	CLIMAT(C) - deprecated: Closed, GBON: Planned, GOS General: Operational, GSN: Operational, RBCN - deprecated: Closed, RBON: Operational, RBSN(S) - deprecated: Closed
8	ST. BRANDON (RAPHAEL ISLAND)	0-20000-0-61986	S	1951-01-01	CLIMAT(C) - deprecated: Closed, GBON: Planned, GOS General: Planned, GSN: Closed, RBCN - deprecated: Closed, RBON: Closed, RBSN(S) - deprecated: Closed
9	VACOAS (MAURITIUS)	0-20000-0-61995	S/UA	1901	CLIMAT(C) - deprecated: Closed, GBON: Planned, GOS General: Operational, GUAN: Operational, RBCN - deprecated: Closed, RBON: Operational, RBSN(ST) - deprecated: Closed

Distance Table in Kilometers (km)

STATION NAME	AGALEGA	DIEGO GARCIA	FUEL	PAMPLEMOUSSES	PLAINE CORAIL (RODERIGUE	PLAISANCE (MAURITIUS)	RODERIGUES (POINT CANON)	ST. BRANDON (RAPHAEL ISLAND)	VACOUS(MAURITIUS)
AGALEGA									
DIEGO GARCIA	1794								
FUEL	1093	2163							
PAMPLEMOUSSES	1080	2163	16						
PLAINE CORAIL (RODRIGUES)	1267	1719	598	608					
PLAISANCE (MAURITIUS)	1118	2179	25	38	600				
RODRIGUES (POINT CANON)	1265	1710	604	614	9	606			
ST. BRANDON (RAPHAEL ISLAND	746	1746	464	458	541	486	540		
VACOAS (MAURITIUS)	1101	2184	22	23	618	25	624	481	

Table IV. Results of the GBON national gap analysis. SLP: Atmospheric pressure; T: Temperature; H: Humidity; W: Wind; P: Precipitation; SD: Snow depth; SST: Sea surface temperature**.**

GBON requirements	Global GBON target (# of stations)	Approved national target (# of stations)	GBON Compliant stations (#)	Stations gap	
				To improve	New
Surface land stations	9	9	0	**1**	**8**
Upper-air stations operated from land	3	3	0	**1**	2
Surface marine stations in Exclusive Economic Zones:[7] Density 500 km Variables: SLP, SST Observing cycle: 1h	5	5	0	**0**	5
Upper-air stations operated in Exclusive Economic Zones: [8] Density 1000 km Vertical resolution: 100 m, up to 30 hPa Variables: T, H, W Observing cycle: twice a day					

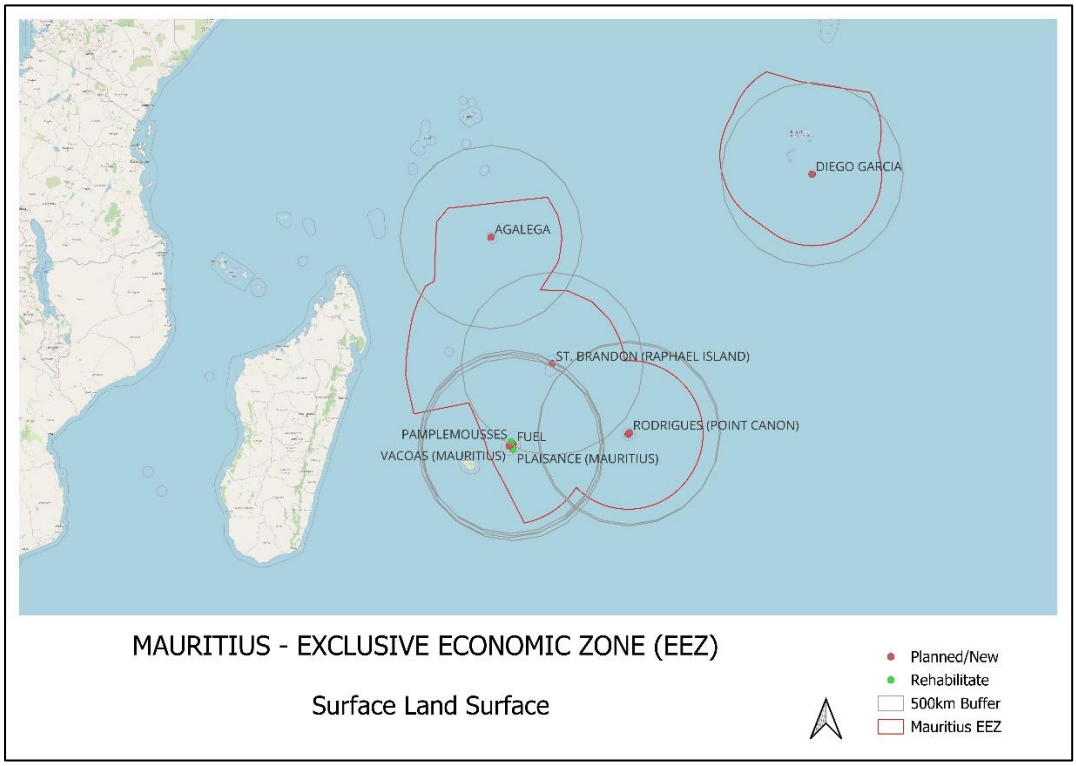
[7] Although GBON marine stations are not part of initial SOFF scope, peer advisors are encouraged to analyze in this step when considered relevant e.g. SIDS, the need for future GBON marine observations investments according to the GBON requirements.
[8] Although GBON marine stations are not part of initial SOFF scope, peer advisors are encouraged to analyze in this step when considered relevant e.g. SIDS, the need for future GBON marine observations investments according to the GBON requirements.

3.1 Recommended existing surface, upper-air and marine[10] stations to be designated to GBON

Table V. Recommended existing surface, upper-air and marine stations to be designated to GBON.

Station name	Station type (S/UA/M[11])
AGALEGA	S/UA/M
DIEGO GARCIA	S/UA/M
FUEL	S
PAMPLEMOUSSES	S
PLAINE CORAIL (RODRIGUES)	S
PLAISANCE (MAURITIUS)	S
RODRIGUES (POINT CANON)	S/M
ST. BRANDON (RAPHAEL ISLAND)	S/M
VACOAS (MAURITIUS)	S/UA

Map: GBON Surface Land Stations – 500km Buffer

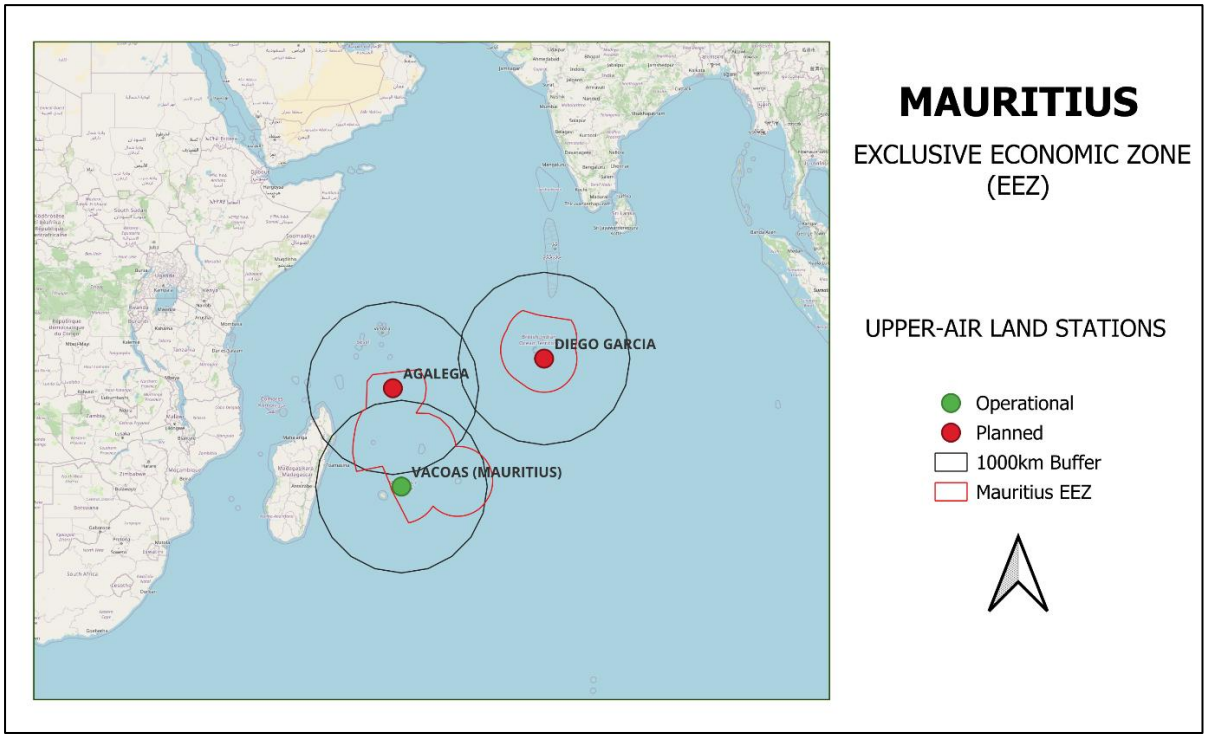


[9] Although GBON marine stations are not part of initial SOFF scope, peer advisors are encouraged to analyze in this step when considered relevant e.g., SIDS, the need for future GBON marine observations investments according to the GBON requirements.

[10] Although GBON marine stations are not part of initial SOFF scope, peer advisors are encouraged to analyze in this step when considered relevant e.g., SIDS, the need for future GBON marine observations investments according to the GBON requirements.

[11] Please see guidance on marine stations in Section 2 on Scope.

Map: GBON Upper-air Land Stations – 1000km Buffer



4. Report completion signatures

Peer Advisor signature

DocuSigned by:
Ishaam Abader
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WMO Technical Authority screening signature

Beneficiary Country signature