

**WMO OMM**

World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

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Annex: 1 (available in English only)

Subject: WMO Training workshops on generating basic climate statistics

Dear Sir/Madam,

I am pleased to inform you of the World Meteorological Organization (WMO) Training Workshops for Regional Association I (Africa) on generating basic climate statistics, which will be held virtually via the ZOOM application. The training will be delivered through six 90-minute sessions, in English from 20 November to 1 December 2023 and then in French from 4 December to 15 December 2023.

The training workshop will address key aspects of the National Meteorological and Hydrological Services' (NMHSs) basic climate data management and aggregation processes, thereby underpinning the capacity of NMHSs to contribute to and benefit from WMO climate-related activities. These activities include the publication of WMO flagship products such as the State of the Climate reports as well as Climatological Standard Normals. Such flagship products showcase the capacity and expertise of WMO Members in delivering world-class authoritative climate information and, in turn, have the potential to raise the visibility of NMHSs.

Please find attached a concept note, including the schedule for the training sessions (see Annex).

I am pleased to invite you to nominate participants from your Service to attend the workshop. Nominees are invited to register for the training individually, using the registration pages: by **14 November 2023**. Participants will receive the ZOOM link upon registration.

[20 November to 1 December 2023 \(in English\)](#)

[4 to 15 December 2023 \(in French\)](#)

I take this opportunity to thank you for your continued support and contribution to the activities of WMO.

Yours faithfully,

Dr Elena Manaenkova
for the Secretary-General

To: Permanent Representatives of Members of Regional Association I with WMO

cc: Hydrological Advisers of Members of Regional Association I with WMO
WMO Regional Offices Abuja, Nairobi, and Addis Ababa

WMO Training workshops on generating basic climate statistics

The workshop is intended to provide training on basic climate statistics, which are fundamental for Members' participation in WMO activities. It will introduce the open-source software package R-Instat, which has been extended to include functionality to support the calculation of Climatological Standard Normals, World Weather Records, National Climate Monitoring Products, etc.

The workshop will be delivered twice via ZOOM, once in English and once in French. A [handbook](#) has been developed from the workshop content to allow participants and other WMO Members to benefit from R-Instat and it includes relevant tutorials and videos. R-Instat is closely linked to OpenCDMS and collaborating CDMSs.

The workshops will be delivered in six 90-minute sessions over a period of two weeks (see draft work plan below).

Date (training in English)	Date (training in French)	Session	Content	Resource persons
Monday, 20 Nov 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Monday, 4 Dec 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Opening Introduction of R-Instat	Scene setting including importance of standard climate datasets; introduction to R-Instat	Roger Stern, Danny Parsons, James Musyoka and Lucie Hazelgrove-Planel (all IDEMS, UK); Peer Hechler (WMO); Members of WMO SERCOM Expert Team on Data Requirements for Climate Services (tbc)
Wednesday, 22 Nov 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Wednesday, 6 Dec 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	A gallery of graphs	How to generate graphs and data visualizations	
Friday, 24 Nov 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Friday, 8 Dec 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Recovering and tidying climate data	Data rescue, data import, conversion into common formats ready for R-Instat analyses	
Monday, 27 Nov 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Monday, 11 Dec 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Taking stock and checking the data	Data inventory, quality control, homogenization	
Wednesday, 29 Nov 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Wednesday, 13 Dec 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Summarizing data and calculating standard products	Generation of summaries for trend and variability analyses, Climatological Standard Normals, World Weather Records, National Climate Monitoring Products	
Friday, 1 Dec 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Friday, 15 Dec 2023, 10:00–11:30 Geneva time (09:00–10:30 UTC)	Discussion and feedback Closure	Remaining questions, discussion of workshop content, suggestions for tutorials, videos, handbook, feedback from participants, WMO view including outlook	