# WMO Survey on Climate Data Homogenization Practices

#### **Introduction (for respondents)**

Dear colleague,

The World Meteorological Organization (WMO) is conducting this survey to better understand how National Meteorological and Hydrological Services (NMHSs) and related institutions apply **climate data homogenization techniques**.

Your answers will help WMO identify common practices, challenges, and needs, in order to provide targeted support, training, and guidance.

Estimated time to complete: **10–15 minutes**.

Responses will be used for WMO internal analysis only.

Thank you for your contribution!

#### 1. General Information

#### 1.1. Name of your organization

(Open text, or drop-down if a predefined list exists)

#### 1.2. Country

(Drop-down list of WMO Members)

#### 1.3. Contact email (institutional)

(Open text)

#### 1.4. Name, mail and position of respondent

(Open text)

## 2. Use of Climate Data Homogenization

#### 2.1. Does your organization currently perform homogenization of climate data?

- Yes
- No
- Not sure

#### If NO → skip to Section 3B

## 3A. Details for organizations that perform homogenization

#### 3A.1. For which climate parameters do you apply homogenization?

(Multiple choice, tick all that apply)

- Temperature
- Precipitation
- Pressure
- Wind
- Sunshine / radiation
- Other (please specify)

#### 3A.2. On which time resolution(s) is homogenization applied?

(Multiple choice)

- Monthly
- Daily
- Sub-daily (e.g., hourly)
- Seasonal / annual
- Other (please specify)

#### 3A.3. For which purposes are homogenized datasets used?

(Multiple choice)

- Operational climate monitoring
- Development of climate indices
- Climate services for stakeholders (agriculture, water, health, etc.)
- Climate change analysis / research
- Model evaluation / reanalysis support
- Other (please specify)

#### 3A.4. At which scale are homogenized datasets available?

(Multiple choice)

- National station level only (not gridded data)
- National gridded dataset
- Regional station level only (multi-country not gridded data)
- Regional Gridded dataset
- Other (please specify)

#### **3A.5.** Is your homogenized data easily available (E.g. through Internet) to: (Multiple choice)

- Users of your organization
- Specific users inside and outside your organization
- All national users
- Global users
- Other (please specify)

#### 3A.6. Is your homogenized data free of charge? (Yes, No, Explanation)

#### 3A.7. Which software or methods are used?

(Multiple choice + free text option)

- ACMANT
- Climatol
- HOMER
- MASH
- PHA
- RHtests
- Other (please specify)

#### 3A.8. What are the main challenges you face in homogenization?

(Open text – optional)

#### 3A.9. What type of support would you find most useful?

(Multiple choice)

- Training (workshops, online courses)
- Technical documentation / good practices
- · Access to recommended software
- Peer-to-peer exchange / expert network
- Other (please specify)

## 3B. For organizations that do not perform homogenization

#### 3B.1. What are the reasons for not applying homogenization?

(Multiple choice)

- Lack of expertise / training
- Lack of resources (financial, staff)
- Lack of software/tools
- Not a priority for the organization
- Other (please specify)

#### 3B.2. Do you have plans to implement homogenization in the future?

• Yes, within 1–2 years

- Yes, but in the longer term
- Not planned
- Don't know

#### 3B.3. What support would help you start homogenization?

(Multiple choice)

- Training (workshops, online courses)
- Technical documentation / best practices
- Access to recommended software
- Peer-to-peer exchange / expert network
- Other (please specify)

### 4. Final Comments

**4.1.** Please share any additional comments or suggestions regarding climate data homogenization and WMO support.

(Open text – optional)