Box 2. Example job description

Department: Climate Services

Job title: Climatologist   Reports to Head of Climate Services

Tasks: Quality control, homogenization and calculation of indices (Competency 1, "Create and manage climate data sets"; Competency 2, "Derive products from climate data")

The employee must be able to meet the following performance criteria:

Performance criterion 1.4: Apply quality control processes to climate data and resulting time series

- Explain the concepts of climate time series quality and homogeneity and the causes of quality problems and inhomogeneities.

- Demonstrate computer literacy and the ability to use and adapt commercial and specifically designed software, including office suites, statistical packages, graphical packages and specific quality control packages.

- Apply statistical concepts associated with quality control issues, namely descriptive statistics, hypothesis testing, probability distributions, correlation, regression models and multivariate statistics.

- Apply quality control techniques and evaluate the quality of a climate data network after gathering documentary, statistical and graphical evidence.

Performance criterion 1.5: Assess climate data homogeneity and adjust inhomogeneous time series

- Explain the concepts of climate time series quality and homogeneity and the causes of quality problems and inhomogeneities.

- Demonstrate computer literacy and the ability to use and adapt commercial and specifically designed software, including office suites, statistical packages, graphical packages and specific homogenization packages.

- Apply statistical concepts associated with homogeneity problems, namely descriptive statistics, hypothesis testing, probability distributions, correlation, regression models and multivariate statistics.

- Apply homogenization techniques and evaluate the homogeneity of a climate data network after gathering documentary, statistical and graphical evidence.

Performance criterion 2.3: Compute climate indices for the monitoring of climate change, climate variability and climate extremes

- Explain the meaning and applications of widely used climate indices, such as those included in the Climpact package.

- Demonstrate computer literacy and the ability to use and adapt commercial and specifically designed software, including office suites and specific packages for the generation of indices such as Climpact.

- Represent climate data and climate indices time series and test them for temporal changes, including significance analysis.

Each job role needs a table like this one. It is necessary to ensure that all the competencies required to meet the requirements of the organization are covered by one or more job roles. A matrix crossing job roles with requested competencies will help to identify whether all the competencies are attributed to a job role.

Note: The text above was extracted from WMO-No. 1285 Guidelines for the Assessment of Competencies for Provision of Climate Services.