**WMO Stewardship Maturity Matrix for Climate Data**

**for National and Regional Purposes**

**SMM-CD\_NRP Self-Assessment Template**

Document ID: WMO-SMM-CD\_NRP-0001; Version: v01r01 20210329

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| **Steps for carrying out self-assessment of a dataset:**   1. Go over the whole file and read the disclaimer carefully before using the assessment template; for additional information read the Guidance Booklet; 2. Enter dataset and relevant Point-Of-Contacts (POCs) information in the template metadata section; 3. Go through each of the two categories with its relevant aspects, enter your rating in the template column to the right (pink) and justify your level rating in the same section; 4. Obtain any additional information if necessary and, if any, restrictions should be stated; 5. Summarize your aspect results by category in the form of a number or graphic stars in the metadata section of the template. |
| **Creative Commons License** – Attribution (BY)-NC (Non-Commercial) |
| **Disclaimer:** Use for the template is intended for use as a preliminary stewardship maturity assessment of a dataset, utilizing the latest WMO SMM-CD\_NRP version. |

**Template Metadata Section** (fill out dataset information and version your assessment):

|  |  |
| --- | --- |
| **Dataset Title** |  |
| **Dataset URL** |  |
| **Data Provider POC**  **(Name; E-mail; Affiliation)** |  |
| **Dataset POC**  **(Name; E-mail; Affiliation)** |  |
| **WMO SMM-CD\_NRP Matrix Version (Document ID and Version Number)** | WMO-SMM-CD\_NRP-0001-v01r00-20200805 |
| **WMO SMM-CD\_NRP POC (Name; E-mail; Affiliation)** | Christina Lief; [christina.lief@gmail.com](mailto:christina.lief@gmail.com); ret.NOAA, WMO SERCOM ET-DRC |
| **WMO SMM-CD\_NRP Template Version (Document ID and Version Numbers)** | WMO-SMM-CD\_NRP-0001-v01r01-20210329 |
| **WMO SMM-CD\_NRP Template POC**  **(Name; E-mail; Affiliation)** | Christina Lief; [christina.lief@gmail.com](mailto:christina.lief@gmail.com); ret.NOAA, WMO SERCOM ET-DRC |
| **Assessment Version (v<nn>r<mm>, e.g., v01r00)** |  |
| **Original Assessment Date (MM/DD/YYYY)** |  |
| **Original Assessment POC (Name; E-mail; Affiliation)** |  |
| **Averaged Stewardship Maturity Rating levels for Categories** | **Operational Data Management:**  **Data Stewardship:** |
| **Update Assessment Date (MM/DD/YYYY)** |  |
| **Update Assessment POC**  **(Name; E-mail; Affiliation)** |  |

**Self-Assessment Template** (enter your level rating with justification in pink column for each Aspect and summarize your level ratings for each category in the template metadata section):

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Mandatory Maturity Assessment Criteria** | | | **Optional** | **User Input** |
| **Category** | **Aspect** | **Level 1**  **(ad hoc)** | **Level 2 (medium)** | **Level 3**  **(highest)** | **Highly Desirable** | **Assessment Level with justification** |
| **Operational Data Management** | **Data Access** | Dataset information not discoverable; Data not available publicly; person to person contact. | Limited dataset information and discovery metadata; Basic online services available for data access (e.g. ftp). | Level 2 + comprehensive discovery metadata; Dataset searchable online; access provided with enhanced online data services. | Level 3 + interoperable data services; web services; conforming to international standards such as the ISO or WIS Core Metadata profile; auditable; ability to download subset of dataset. |  |
| **Data Portability** | Non-machine readable. | Basic machine readable. (e.g. ASCII, data and metadata separate in one file such as [gpcc\_first\_guess\_01\_2020.gz](https://opendata.dwd.de/climate_environment/GPCC/first_guess/2020/)) | Standards-based machine readable. | Machine independent, self-describing, interoperable format. (e.g. netCDF) |  |
| **Data Preservation** | Data not routinely backed up. | Backup copy of electronic data is routinely made. | Level 2 + follow institutional archival practices including off-site copy; basic retention policy defined and implemented. | Level 3 + Conforming to National archiving standards; Comprehensive retention policy defined and implemented. |  |
| **Documentation** | Product information not publicly available online. | Limited online documentation (e.g. User Guide). | Comprehensive documentation available online. | Level 3 + available in standard format template (e.g. [INSPIRE](https://inspire.ec.europa.eu/), [NASA ATBD's](https://eospso.nasa.gov/content/algorithm-theoretical-basis-documents)). |  |
| **Data Integrity** | Unknown or no data integrity check. | Random data integrity check. | Data integrity systematically verified through effective checks and rectification actions, so that data expected is data received into the climate database. | Level 3 + verified with documented audit trails, and/or traceability; also for data services for users and applications. |  |
| **Data Stewardship** | **Quality and Usage** | No QA/QC procedures defined or implemented and information not available online. | QA/QC procedures defined and available online but not systematically implemented. | Level 2 + data quality assessed and available online such as error or uncertainty estimates; dataset used in national report. | Level 3 + dataset citations in scientific publication in peer-reviewed journal. Used/cited by other well-known climate data centers (NOAA/NCEI, DWD, etc.). |  |
| **Governance** | Responsibility/accountability compliance mechanism is not defined; No contact information. | Responsibility/accountability compliance mechanism defined for data management operations; User support contact information available. | Level 2 + adheres to data management competency standards and includes written data management policies, procedures, and compliance mechanisms. | Level 3 + compliance to community standards  controlled and audited by ISO procedures; or following community best-practice guidance, such as the Data Management Body of Knowledge ([DAMA-DMBOK V2 Guide](https://dama.org/sites/default/files/download/DAMA-DMBOK2-Framework-V2-20140317-FINAL.pdf)) |  |
| **Metadata** | Collection-level metadata not publicly available and/or not usable. | Limited collection-level metadata available for the users. (e.g. model, network, granular and station metadata such as station latitude/longitude, elevation, instrument type and method) | Level 2 + metadata conforming to community standards and available online  (e.g. for observations [WIGOS Metadata Standards](https://library.wmo.int/?lvl=notice_display&id=19925#.Xs0vp2hKhPY)). | Fully compliant with national and international standards; rich metadata content; support dataset provenance. |  |