Dear John,

According to Report of the Meeting of the WMO CCl OPACE 2 Task Team on National Climate Monitoring products 12 – 14 September 2011 the action requested from the team members MS and OB (WMO)  is to investigate the mechanisms within CBS for metadata definition and dissemination and report back to the team.

I did an investigation on what written about Metadata and the mechanisms within CBS for metadata definition and the result as the following:-

         **Role of CBS (**WMO Commission for Basic Systems (CBS) is the mechanism through which Members contribute expertise related to:

–         observing, data processing, data communication and data management,

–        provision of public weather services,

–        in response to requirements of all WMO Programmes and opportunities provided by technological developments. …..

* CBS is the lead Technical Commission for:

–        the overall World Weather Watch Programme (WWW),

–        the Public Weather Services Programme, as well as

–        Implementation of WIS and WIGOS…..

* CBS has 313 members from 140 countries, and is the biggest TC

The new CBS Working Structure Focus on Climate needs, metadata, classification of observing systems, implementation issues.

* **WMO Core Metadata Profile**

According to the request by Fourteenth WMO Congress (2003), all WMO Programmes have joined efforts in the development of Version 1.0 of the WMO Core Metadata Profile of the ISO Metadata Standard (2). It is now available on the WMO server in the three formats, text description; XML representation based on ISO 19139 standard, and UML representation. That version uses simple catalogues for its information: in addition to those required by the relevant ISO standard, a thesaurus for keywords, a list of the “four-character” country codes and a gazetteer to allow the translation of station names, station identifiers and station number into the geographical position. Improvements will be developed for representing more comprehensive information related to observing stations using the metadata sources such as key words/key phrases based on International Meteorological Vocabulary (WMO-No. 182), Technical

Regulations (WMO-No. 49), and station history records. Experts have identified the need for developing some extensions to the ISO 19115 to fully cover WMO necessities.

Tools will be provided for automated “harvesting” metadata from routine data, an essential function for the GISCs. An editor for manually creating metadata will also be developed. WMO is planning training activities for users on the generation and applications of metadata, and a “best practice” guide is also foreseen.

         **INTER-PROGRAMME EXPERT TEAM ON METADATA AND DATA INTEROPERABILITY (IPET-MDI)**

–        **The first meeting of the CBS Inter-Programme Expert Team on Metadata and Data Interoperability (IPET-MDI) was held in Geneva, Switzerland, from 27 to 29 April 2010 under the chairmanship of Mr J. Tandy (UK).**

–        The meeting focused its activities on the WMO core profile of the ISO metadata standard, in particular on the clarification required for the implementation of the WMO core profile by WIS centres and the tool to support the development of WMO Core Profile standard. The meeting developed 62 recommendations in this respect related to the following items:

-          File naming conventions

•          Metadata identifiers

•          Relating data-files to metadata-files

•          Metadata versioning

•          Dataset hierarchies

•          Geographic metadata conventions & machine-readable gazetteer for Volume A

•          Automated validation

•          Human readable metadata & SRU query response

•          Controlled vocabularies and ontologies

•          Definition of access control policy controlled vocabulary & implementation in metadata                                               record

•          Miscellaneous metadata conventions

•          Metadata management policies

•            Tooling to support collaborative development of WMO Core Profile standard

         **The WMO\_ metadata\_standard\_keywords can be found in**

[**http://www.wmo.int/pages/prog/www/WDM/Metadata/documents.html**](http://www.wmo.int/pages/prog/www/WDM/Metadata/documents.html)

 All matters related to  File naming conventions,Metadata identifiers ,Relating data-files to metadata-files ,Metadata versioning ,Dataset hierarchies ,Geographic metadata conventions & machine-readable gazetteer for Volume A ,Automated validation ,-Human readable metadata & SRU query response ,-Controlled vocabularies and ontologies ,Definition of access control policy controlled vocabulary & implementation in metadata              record ,Miscellaneous metadata conventions ,-Metadata management policies and tooling to support collaborative development of WMO Core Profile standard can be explained in the

INTER-PROGRAMME EXPERT TEAM ON METADATA AND DATA INTEROPERABILITY  GENEVA, 27-29 April 2010  Report.

**Task Team on the Application of Metadata (TT-ApMD) Terms of Reference**

1.       To identify standard ways of expressing information within metadata that is to be used by WIS to control access to and management of data.

2.       To identify emerging good practice in creating metadata that will enable users from outside the originator’s community to identify that the data are relevant to them and develop recommended practices to achieve this end

3.       To create educational material to assist Members in creating and managing metadata based on the experiences of those who have already created and used metadata

4.       To provide exemplars of metadata for a variety of common data set types

5.       To implement an educational programme for Members

6.       To assist Members improve the metadata for their datasets beyond the automated metadata generated for data listed in the GTS catalogue

7.       To develop a migration procedure from Volume C1 to metadata catalogue

8.       To actively promote within the WMO community adoption of the practices it has developed and the exchange of further best practice that evolves within the user communities

9.       To hand over maintenance of the guidance to a more permanent team by CBS XV (2012).

hope to get  feedback from you and all the team members

best regards

Mohammad Samawi

Director General

Jordan Meteorological Department