PROPOSED STRUCTURE FOR:
THE STATUS OF THE GLOBAL CLIMATE OBSERVING SYSTEM 2021

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FOREWORD

EXECUTIVE SUMMARY

1. INTRODUCTION

2. STATUS OF THE GCOS ESSENTIAL CLIMATE VARIABLES

Table 1 Example of Table of Status of ECV.

Split by ECV product if needed. There will be background information in a separate document/ on internet/??? To give technical information on the choice of colour and on the status of observations. Final decisions on the colour will be made by a small group to ensure consistency across ECV.

ECV		**Adequacy of the Observational System** (the ability of the observational system to produce adequate datasets for users).	**Availability and Stewardship** (availability, discoverability and stewardship)
Temperature		Yes	Yes
Precipitation		High Quality	Gaps
…		…	…
River discharge		High Quality	Much data is not exchanged
Above-ground Biomass		Not accurate enough - new satellite missions underway to address this. This is some text and a	Global coverage from satellites
Lakes	Lake colour	Under Development	Under Development
	All other products	Measurements of good quality	Not all data exchanged

2.1. Status of ECV

Brief discussion on issues by ECV. Highlight commonalities and important points/issues. Up to one page per ECV. This information may be summarized in a shorter version of the document, and the full information presented in the longer version of the document and on the internet.

2.1.1. Atmospheric

2.1.2. Ocean ECV

2.1.3. Terrestrial ECV

3. STATUS OF THE OBSERVING NETWORKS

Table 2 Table mapping networks and ECV

ECV	Networks			
	Network 1	Network 2	Network 3	…
ECV 1				
ECV 2				
…				

Comments on the status and future of each network. Issues may include accuracy, stability, continuity, data accuracy etc.

3.1. Satellite Observations

3.2. GCOS Networks

GSN, GUAN, GRUAN, GSRN, GTN-X etc.

4. STATUS OF THE IMPLEMENTATION OF ACTIONS FROM THE 2016 IMPLEMENTATION PLAN

Table 3 Status of Implementation Plan Actions.

Only Brief Information as shown below is given. Separate tables for general, atmospheric, oceanic and terrestrial Actions.

Action		Comment
G1	Guidance and best practice for adaptation observations	Task Team on Observations for Adaptation convened and reported to Steering Committee. Work continues.
G2	Specification of high-resolution data	Depends on outcome of adaptation task team (G1).
G3	Development of indicators of climate change	Done. Used in WMO Statement on Climate Change
G4	Indicators for Adaptation and Risk	Depends on outcome of adaptation task team (G1).
G5	Explore how ECV data can contribute to: a) The Ramsar Convention; b) the Sendai Framework for Disaster Risk Reduction; c) other MEAs.	Pending outcome of adaptation related work (G1)
G6	Assisting Developing Countries to maintain or renovate climate observation systems and to improve climate observations networks	Done. Work limited by available funds.
G7	GCOS Coordinator	Not all countries identify a GCOS Coordinator
G8	Regional Workshops	Done - one workshop annually. Work limited by available funds. Planning on continuing annually
G9	Communications strategy	Done but implementation pending WMO reorganisation
G10	Maintain ECV Requirements	Underway - an on-going activity
G11	Review of CDR availability	Available via ECV Inventory form EUMETSAT
G12	Gap-analysis of CDR	Underway - an on-going activity
G13	Review of ECV observation networks	Underway - an on-going activity
G14	Maintain and Improve Coordination	Underway - an on-going activity
G15	Open Data Policies	Despite some progress not all data is openly available.
G16	Metadata	Underway - an on-going activity
G17	Support to National Data Centres	
G18	Long term accessibility of data	
G19	Data access and discoverability	
G20	Use of Digital Object Identifier for data records	Underway - an on-going activity
G21	Collaboration with WMO CCl on climate data management	Underway - an on-going activity
G22	Implementation of new production streams in global reanalysis	Underway - an on-going activity
G23	Develop coupled reanalysis	Underway - an on-going activity
G24	Improve capability of long-range reanalysis	Underway - an on-going activity
G25	Implementation of regional reanalysis	
G26	Preservation of early satellite data	
G27	Recovery of instrumental climate data	
G28	Register of data recovery activities	
G29	Scanned records	
G30	Historical data records sharing	
G31	Improve Gravimetric Measurements from Space	Underway
G32	Improved Bathymetry	

5. OBSERVATIONS OF AND FOR ADAPTATION, AND OF EXTREMES

- Which ECV are useful observations for and of adaptation. Are existing requirements adequate for this? What observational limitations are important?
- Do the current ECV monitor extreme climate related events adequately? Are the Requirements adequate?
- May need a table by ECV?

6. OBSERVING THE EARTH SYSTEM CLIMATE CYCLES

7. CONCLUSIONS

The precise structure of this chapter will be decided after the main document is substantially complete

7.1. Principal Findings

7.2. Adequacy of observations of the Earth System Cycles

(integrating results of sections 2-6 The carbon and water cycles, energy balance and biosphere)

7.3. Adaptation

7.4. Extremes

ANNEX A GLOSSARY

ANNEX B CONTRIBUTORS TO THIS REPORT

ANNEX C REVIEWERS OF THIS REPORT