Understanding Changes in Climate (in support of the Global Stock Take)

Changes in the Energy Budget
Atmosphere and Ocean Temperature, Heat Content

Changes in the Atmospheric Composition

Changes in Weather
Extreme Events

Changes in the Hydrological Cycle
River Discharge, Lakes, Precipitation

ATMOSPHERE
CO₂, CH₄, N₂O, O₃, H₂O and others
Aerosols

Volcanic Activity

Hydrological Cycle
River Discharge, Lakes, Precipitation

Changes in Weather
Extreme Events

Human Influence

Atmosphere-Ice Interaction
Heat Exchange
Wind Stress
Terrestrial Radiation

Precipitation Evaporation

Volcanic Activity

Clouds
Ice Sheet

HYDROSPHERE
Ocean

Ice-Ocean Coupling
Sea Ice

Rivers and Lakes

Changes in the Ocean
Sea Level, Ocean Currents, Acidification

Biosphere
Changes in and on the Land Surface
Vegetation

Changes in the Cryosphere
Snow, Frozen Ground, Sea Ice, Ice Sheets, Glaciers

Land Surface
Droughts, Floods

Soil Carbon

World Meteorological Organization
GCOS
WCRP
Global Climate Observing System
World Climate Research Programme

WEATHER CLIMATE WATER