**Appendix X**

Modeling Groups from CMIP5 used in

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**Table X1**. CMIP5 General Circulation Models from which climate projections were used in this study. Yellow shading indicates model output with unrestricted access, unshaded cells indicate model output for non-commercial use only. This table is a subset of that found here: http://pcmdi-cmip.llnl.gov/cmip5/terms.html

|  |  |  |
| --- | --- | --- |
| **Modeling Center (or Group)** | **Institute ID** | **Model Name** |
| Commonwealth Scientific and Industrial Research Organization (CSIRO) and Bureau of Meteorology (BOM), Australia | CSIRO-BOM | ACCESS1.0  ACCESS1.3 |
| Beijing Climate Center, China Meteorological Administration | BCC | BCC-CSM1.1  BCC-CSM1.1(m) |
| College of Global Change and Earth System Science, Beijing Normal University | GCESS | BNU-ESM |
| Canadian Centre for Climate Modelling and Analysis | CCCMA | CanESM2 |
| National Center for Atmospheric Research | NCAR | CCSM4 |
| Community Earth System Model Contributors | NSF-DOE-NCAR | CESM1(BGC)  CESM1(CAM5) |
| Centro Euro-Mediterraneo per I Cambiamenti Climatici | CMCC | CMCC-CM |
| Centre National de Recherches Météorologiques / Centre Européen de Recherche et Formation Avancée en Calcul Scientifique | CNRM-CERFACS | CNRM-CM5 |
| Commonwealth Scientific and Industrial Research Organization in collaboration with Queensland Climate Change Centre of Excellence | CSIRO-QCCCE | CSIRO-Mk3.6.0 |
| EC-EARTH consortium | EC-EARTH | EC-EARTH |
| LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences and CESS,Tsinghua University | LASG-CESS | FGOALS-g2 |
| LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences | LASG-IAP | FGOALS-s2 |
| The First Institute of Oceanography, SOA, China | FIO | FIO-ESM |
| NOAA Geophysical Fluid Dynamics Laboratory | NOAA GFDL | GFDL-CM3  GFDL-ESM2G  GFDL-ESM2M |
| NASA Goddard Institute for Space Studies | NASA GISS | GISS-E2-H-CC  GISS-E2-R  GISS-E2-R-CC |
| National Institute of Meteorological Research/Korea Meteorological Administration | NIMR/KMA | HadGEM2-AO |
| Met Office Hadley Centre (additional HadGEM2-ES realizations contributed by Instituto Nacional de Pesquisas Espaciais) | MOHC  (additional realizations by INPE) | HadGEM2-CC  HadGEM2-ES |
| Institute for Numerical Mathematics | INM | INM-CM4 |
| Institut Pierre-Simon Laplace | IPSL | IPSL-CM5A-LR  IPSL-CM5A-MR  IPSL-CM5B-LR |
| Japan Agency for Marine-Earth Science and Technology, Atmosphere and Ocean Research Institute (The University of Tokyo), and National Institute for Environmental Studies | MIROC | MIROC-ESM  MIROC-ESM-CHEM |
| Atmosphere and Ocean Research Institute (The University of Tokyo), National Institute for Environmental Studies, and Japan Agency for Marine-Earth Science and Technology | MIROC | MIROC5 |
| Max-Planck-Institut für Meteorologie (Max Planck Institute for Meteorology) | MPI-M | MPI-ESM-MR  MPI-ESM-LR |
| Meteorological Research Institute | MRI | MRI-CGCM3 |
| Norwegian Climate Centre | NCC | NorESM1-M  NorESM1-ME |