

The Vulnerability, Impacts, Adaptation, and Climate Services (VIACS) Advisory Board for CMIP6 - Summary of Phase 1 (2015-2018)

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The Vulnerability, Impacts, Adaptation, and Climate Services (VIACS) Advisory Board was launched in June, 2015 as an endorsed Model Intercomparison Project (MIP) of the Coupled Model Intercomparison Project Phase 6 (CMIP6). The VIACS Advisory Board was designed to enhance and coordinate two-way interactions between the various VIACS communities (which use climate model output) and the CMIP Earth system modeling communities (which produce climate model output). The VIACS Advisory Board therefore aims to serve as a bridge enabling more targeted development of VIACS-relevant CMIP scenarios, outputs, and evaluations, while also improving the recognition of caveats, limitations, and opportunities for more robust application of climate model outputs incorporating the expert guidance of model developers. The VIACS Advisory Board also received a formal endorsement from the Programme for Research on Climate Change Vulnerability, Impacts, and Adaptation (PROVIA), which solidified support for participation from major VIACS communities.

An initial success of the VIACS Advisory Board was its ability to recruit top researchers and representatives of key communities to serve on the Board recognizing the importance of its tasks. Phase 1 was led by co-chairs representing the VIA community and the CS community, with members representing major impact sectors (water, agriculture, terrestrial ecosystems, marine ecosystems, health, urban/infrastructure, and energy systems) major international programs and projects (the World Climate Research Programme's Working Group on Regional Climate, WGRC; the Coordinated Global Regional Downscaling Experiment, CORDEX; the Task Group on Data and Scenario Support for Impacts and Climate Analysis, TGICA; and the Inter-Sectoral Impact Model Intercomparison Project, ISIMIP), and climate service centers in multiple regions. Board members were selected based on their experience in applying climate model outputs for societal benefit, as well as their ability to rapidly engage their respective communities in order to provide synthesized feedback and inputs into CMIP6 activities.

Phase 1 of the VIACS Advisory Board coincided with the design phase of CMIP6, and thus its activities were primarily focused on providing VIACS perspective into the construction and prioritization of model experiments and model outputs for downstream applications. These activities were summarized by Ruane et al. (2016), including an evaluation of VIACS interest in all CMIP5 output variables; requests for additional tailored output variables; the creation of specific applications-oriented packages of output data that could be requested in the CMIP6 data archive; an indication of MIP simulation experiments likely to be used in VIACS activities; and a call for enhanced evaluation of key model diagnostics relevant to impacts modeling, perhaps including similarly-oriented observational products (Obs4Impacts). Co-Chairs also represented the VIACS perspective at international meetings and model evaluation workshops (e.g., Eyring et al., 2019).

Ruane, A.C., C. Teichmann, N. Arnell, T.R. Carter, K.L. Ebi, K. Frieler, C.M. Goodess, B. Hewitson, R. Horton, R.S. Kovats, H.K. Lotze, L.O. Mearns, A. Navarra, D.S. Ojima, K. Riahi, C. Rosenzweig, M. Themessl, and K. Vincent, 2016: [The Vulnerability, Impacts, Adaptation and Climate Services Advisory Board \(VIACS AB v1.0\) contribution to CMIP6](#). Geosci. Model. Dev., **9**, 3493-3515, doi:10.5194/gmd-9-3493-2016.

Eyring, V., et al., 2019: [Taking climate model evaluation to the next level](#). Nature Clim. Change, **9**, no. 2, 102-110, doi:10.1038/s41558-018-0355-y.