Projected temperatures

Winter temperature

Projected winter temperature changes for the Mediterranean are presented in Figure B1. For pathway RCP2.6, the EURO-CORDEX multi-model ensemble suggests a relatively mild increase that is not expected to exceed 1°C-2°C for all sub-periods (Fig. B.1 - left panels). Particularly for the middle and late-21st century, the projected winter warming is slightly higher over the eastern part of the Mediterranean. Nevertheless, the regional differences are not so evident. For the business-as-usual RCP8.5, the near-future winter temperature projections are of the same magnitude as the worst-case ones for RCP2.6 (Fig. B.1 - top right). Already by mid-century, winter warming is expected to reach 3°C, with respect to the historical reference, in many parts of the region. This is the case mainly in high-elevation regions, such as the Atlas Mountains, the Alps, Anatolia and parts of the Balkan Peninsula, highlighting that winter warming could be enhanced by positive snow-albedo feedbacks. For the end of the current century (Fig. B.1 - bottom right), warming is projected to intensify and exceed 4°C in most of the region. In the hotspot mountainous areas, this warming is projected to reach 6°C with respect to the reference period.

Figure B.1 | Projected changes in winter (December, January, February) temperatures between the recent past reference period (REF: 1980-1999) and three future sub-periods (NEAR: 2020-2039, MID: 2040-2059, END: 2080-2099), based on the ensemble mean results of the EURO-CORDEX high-resolution simulations for pathways RCP2.6 (left panels) and RCP8.5 (right panels).