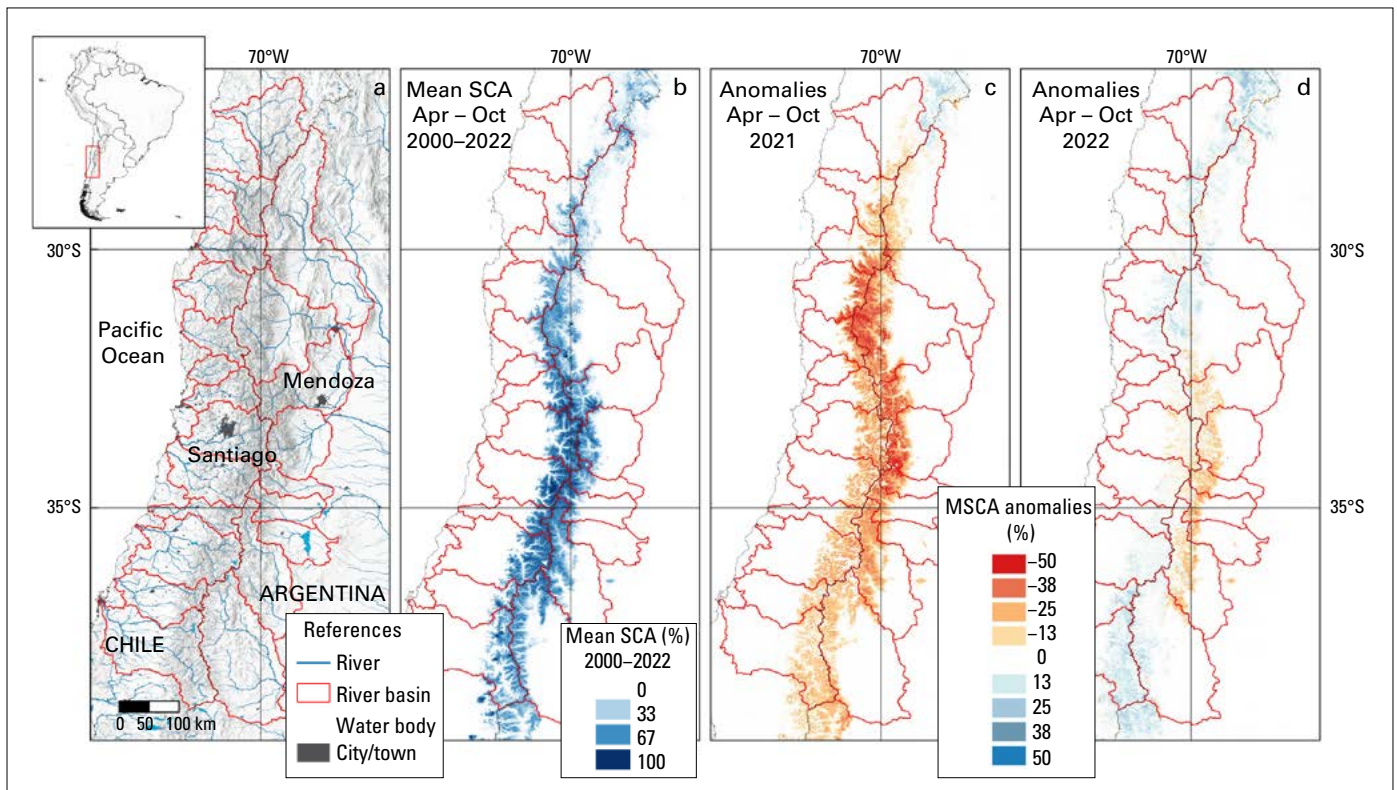


## SUBTROPICAL ANDES

The winter snow in the subtropical Andes regulates the flows of mountain rivers across central Chile and central-western Argentina and provides the largest volumes of water for recharging the aquifers used on both sides of the Andes, for cities like Santiago (Chile) and Mendoza (Argentina).

Since 2009–2010, the region’s winter snow accumulation has declined substantially, resulting in an extended period of drought locally known as “mega-drought”. Analyses of the snow-covered areas indicate that the winter of 2021 showed the lowest snow accumulation values on record, while during the winter of 2022, the snow amounts reached slightly above-average conditions in some areas (Figure 13), with below-average conditions persisting along the central watersheds between  $\sim 32^\circ$  and  $\sim 37^\circ\text{S}$ , especially along the eastern side of the Andes (Argentina). As these watersheds contain the most heavily populated urban centres of the region, water shortages have continued, and the local governments have kept water restriction measures in place.



**Figure 13.** (a) Map of the Andes in Chile and Argentina between  $\sim 27^\circ$  and  $\sim 39^\circ\text{S}$  (the shading indicates topography). (b) Mean cold-season (April–October) snow-covered area (SCA). (c) Cold-season SCA anomalies for 2021. (d) Cold-season SCA anomalies for 2022.

Source: [Observatorio de Nieve en los Andes de Argentina y Chile](#).