



Fig. 3 Annual average changes in equivalent temperature (T_E) and absolute specific surface humidity (q) from recent (1992-2015) land cover transitions in Europe. Annual average T_E changes (in $^{\circ}\text{C}$) due to the mix of land cover transitions (**a**) and from excluding contributions of cropland abandonment (**c**); probability distribution function of T_E changes across the entire domain (**e**); annual average q changes (in g kg^{-1}) due to the mix of land cover transitions (**b**) and from excluding contributions of cropland abandonment (**d**); probability distribution function of q changes across the entire domain (**f**). In **e** and **f**, the solid line shows the distribution of the values and the dashed vertical line indicates the respective mean value. LC1992 and LC2015 refer to regional climate simulations with the European land cover in 1992 and 2015, respectively. NoCRP_AB refers to a land cover dataset where cropland in 1992 is not allowed to convert to other land classes.