

Planetary boundaries: Guiding human development on a changing planet

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Crossing the boundaries in global sustainability

The planetary boundary (PB) concept, introduced in 2009, aimed to define the environmental limits within which humanity can safely operate. This approach has proved influential in global sustainability policy development. Steffen *et al.* provide an updated and extended analysis of the PB framework. Of the original nine proposed boundaries, they identify three (including climate change) that might push the Earth system into a new state if crossed and that also have a pervasive influence on the remaining boundaries. They also develop the PB framework so that it can be applied usefully in a regional context.

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