

What are the ecosystem consequences of resource footprints?

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Knowing magnitudes of resource footprints is a useful first step for environmental impact analysis. However, these accounts alone do not inform about the consequences these pressures have on the ecosystems. In the end, consequences and not pressures alone should be guiding policy makers in environmental decisions. A method that can contribute to closing the gap between accounting of pressures and consequences on ecosystems is the newly released LC-Impact approach, a spatially refined life cycle impact assessment method. By coupling this approach with MRIO-based pressure footprints, we calculate "ecosystem impact footprints" in terms of consequences for ecosystems. This new perspective shows that there are large differences in nation's relative contributions to global footprints. Looking at pressure footprints shows that most wealthy countries have high footprints in lower-income countries. However, if we add the dimension of consequences, this is not necessarily true anymore, since a substantial part of the impact footprints tend to originate in other, higher-income countries. This can for example be due to the vulnerability of an ecosystem type to a certain pressure or the rarity of present species. This changed perspective might also provide a different insight on where to focus on in terms of policy actions to halt biodiversity loss.