

"Inequalities and unsustainable consumption: a tale from two countries"

Summary.

The rise in domestic inequalities pose a substantial challenge to policymakers in the coming decades and little is known about how to reduce them under climate and resource constraints. This paper will estimate direct and indirect GHG emissions of different income and social groups in the USA and France over the past three decades using Multiregional Input Output methodologies. Estimates will then be used to address the following questions: How was the evolution of resource use distributed among income and social groups in France and the USA and what drivers explain these trends? What consumption categories account for the rise in material resource requirements over the past two decades and how does this change across countries, income and social groups? What types of changes in expenditure patterns and distribution would be consistent with equitable access and life satisfaction, while remaining within planetary boundaries?

Abstract.

The rise in domestic inequalities in developed countries following the equalizing events of the world wars is well documented (Piketty and Zucman, 2014), and it is recognized that such trends constitute a substantial challenge to policymakers in the 21st century (OECD, 2011). Little is known, however, of the interactions between domestic inequalities and the necessary transition to environmental sustainability, another central challenge for policymakers in the decades to come (IPCC, 2014).

Better understanding these links is however key in order to ensure that ecological transition policies are equitable. This is necessary on the grounds of fairness, but also for strategic motives, as transition policies are less likely to be adopted if they are seen as regressive (Hourcade, 2013; Ekins and Dresner, 2004). In addition, social policies aiming at reducing inequalities generally do not integrate an environmental transition perspective. This should however be the case if policymakers want to reach both social and environmental objectives and not compromise one for the other.

Interest in inequality and material resource requirements is not new. In the 1970s, Herendeen and Tanaka (1976) investigated the energy cost of living of American households and showed that a third of the total energy requirement of low-income Americans was indirect energy (i.e. energy required to produce goods and services purchased by households), while this share reached two thirds for high income Americans, revealing both the importance of consumption patterns in explaining resource requirements as well as the changing nature of resource requirements according to income levels.

More recently, Lenzen et al. (2006) compared different developed and developing countries and show how consumption and resource use requirements change over countries and income groups. Focusing on the UK, Papathanasopoulou and Jackson (2009) carried out a historical analysis of the material household resource requirements. They showed that material resource requirements from bottom quintiles were relatively stable over from 1969 to 2000 while they increased for top quintiles of the income distribution, essentially because of travel and entertainment related expenses.

If a robust methodology exists to account for indirect energy requirements, most prominent studies in field of climate change and domestic inequality do not focus explicitly

on indirect resource requirements and assume a 1-to-1 correspondence between income and GHG emissions (see Chakravarty et al., 2009).

It is then possible to go further than current research in several ways. First, the dynamics between income inequality, material consumption and GHG emissions are rarely addressed quantitatively by this literature, making it hard both to understand current trends as well as model future consumption patterns and their material requirements. Second, such studies follow similar but different methodologies, rendering analyses based on international comparisons particularly difficult. However, international comparisons of income inequalities and resource consumption dynamics would be particularly revealing to identify (common) drivers of material requirements as well as low carbon lifestyles at a given income level, independent of technological or energy mix of a country. Finally, all of these studies focus on data prior to 2005 (before 2000 in the UK case) and the latest dynamics have not been documented, even though there have been important variations in income distributions.

In order to address current research gaps, the research will develop direct and indirect GHG emission estimates in the USA and France over the past thirty years. The approach followed will build on the work of Papathanasopoulou and Jackson (2009) or Lenzen et al. (2006) rather than use Chakravarty et al.'s (2009) income-energy elasticity approach. The following questions will then be dealt with: How was the evolution of resource use distributed among income and social groups in France and the USA and what drivers explain these trends? What consumption categories account for the rise in material resource requirements over the past two decades and how does this change across countries, income and social groups? What types of changes in expenditure patterns and distribution would be consistent with equitable access and life satisfaction, while remaining within planetary boundaries? How can a transition to the corresponding production/consumption structures be conceived?

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