## Research Brief Moral duties of carbon majors: Implications for global climate policy

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In 2014, Richard Heede published a fundamental study that traced most of global carbon emissions to specific actors.<sup>1</sup> Ninety largest fossil fuel companies and cement producers, known as 'carbon majors', were found to be responsible for as much as 63% of global industrial carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) emissions between 1751 and 2010. The top world emitters include investor- and state-owned entities, such as Saudi Aramco (Saudi Arabia), Chevron, ExxonMobil, and ConocoPhillips (USA), BP (UK), Total (France), Shell (Netherlands), National Iranian (Iran), Petrobras (Brazil), and others.

Carbon majors are like an elephant in the room of global climate policy: the harmful consequences of their actions are recognized, yet, remain unchallenged. Heede's analysis emphasizes the necessity of rethinking climate change responsibility and assigning carbon majors with moral duties. Besides their significant contribution to the problem, these incorporated entities have always made substantial profits from the extraction and distribution of fossil fuels. Furthermore, they have been continuing business-as-usual even after the negative effects of such actions were confirmed by the scientific community and addressed internationally. Recognition of moral duties of carbon majors can significantly change patterns of distribution of burdens and benefits, modify the flow of large amounts of financial and other resources, and dramatically redesign the structure and dynamics of climate change mitigation and adaptation processes and institutions.

The overall objective of the proposed research agenda is to develop an ethical framework able to accommodate the special position of carbon majors in the global efforts of climate change mitigation and adaptation. To this end, the research first justifies the attribution of moral duties to carbon majors and then discusses the implications of such duties in global climate policy. The first normative part of the analysis concludes that carbon majors have a duty of decarbonization and a duty of disgorgement. The duty of decarbonization originates from a demand of distributive justice since it is, in essence, a matter of redistribution of carbon abatements burdens grounded in prioritarian principles of justice. As such, it implies a broad ethical commitment of carbon majors to sustainability, which would ultimately lead to reduction and eventual elimination of their CO<sub>2</sub> emissions. The duty of disgorgement is grounded in corrective justice and based on a Beneficiary Pays Principle (BPP). Such duty requires that carbon major relinquish financial resources in the form of payment to the victims of climate change for the wrongly appropriated benefits related to their activity. The work then discusses policy relevant implications generated by carbon majors' moral duties. First, it focuses on a "utopian" scenario: what should happen based purely on the requirements of distributive and corrective justice. Then, it turns to a discussion of the key obstacles on the way of justice that are impeding the process of including carbon majors into the global efforts of climate change mitigation and adaptation, and proposes possible policy measures for addressing such problems.

<sup>&</sup>lt;sup>1</sup> Richard Heede, "Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010," *Climatic Change* 122, no. 1-2, (2014).