## The Transformative Role of Socioeconomic Justice in Addressing Climate Governance

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### <u>Draft</u>

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# A: The way from Copenhagen to Paris- a chronology of climate justice research in Israel in 5 sets.

a. The starting point date of our research<sup>1</sup>, is the day after Copenhagen climate convention (COP15) in December 2009, was based on the analysis of the prevailing debate on climate change on the international arena, and on the ways towards reaching global agreement on mitigation measures and adaptation, pointed to climate injustice as a major obstacle for achieving fair and binding global framework that would replace the Kyoto protocol hinged on a sensible incorporation of climate justice principals.

In early 2010 the Israeli government set up a high level committee to design measures to curb GHG emissions, in line with Israel's self-declared targets at the COP15. The Israeli commitment as delivered by president, then, Shimon Peres at the Copenhagen summit, is a 20% reduction in CO<sub>2</sub> emissions by 2020, as compared with the "Business as Usual" scenario.

The preliminary data AEJI has presented at the Israeli parliament on 2010, illustrates how important it is that the effort undertaken by the government should be informed by differences that exist between sub-groups in their respective patterns of energy and fossil fuel consumption. Given these differences, we argue, policy tools could have divergent economic, cultural and social implications for different populations. It follows then that when governments move to design new regulations for emission cuts, they must be mindful of existing gaps between sub-groups in terms of size and composition of carbon footprint. The economic, social, cultural and political consequences of reducing carbon footprints<sup>2</sup> need to be accounted for in the case of each group separately.

b. Following the government of Israel decision on comprehensive budget cuts for the years 2013-2014, including a three year freeze, which on 2015 the just new elected government decided on cancellation of the (already freezed) national plan for the reduction of GHG emissions. The original plan was ratified by late 2010, and had allocated a total sum of NIS 2.2 billion to be used

<sup>&</sup>lt;sup>1</sup> The Association of Environmental Justice in Israel (AEJI), a policy research center established in 2009, views a comprehensive climate policy for Israel with utmost importance, has set up the 1<sup>st</sup> team of academics, including economists in 2010, to review the measures for climate legislation, including fiscal legislation. The team, which was scheduled to present conclusions towards COP21 (Paris 2015), has focused on define the carbon inequalities in Israel, analyzing the costs and benefits of various policy tools for specific populations. The academic research is headed by Prof. Dan Rabinowitz, chairperson of AEJI and head of Porter school for environmental studies at Tel Aviv University. The research team members are the students: Ro'ee Levy, Tamar Nuegarten, Guy Milman and Lisa Anisow. This article summarizes the wide research work on climate and societal field, and policy recommendations been conducting by Carmit Lubanov along 2010-16. The study was made possible thanks to a Rosa Luxemburg Foundation grant.

<sup>&</sup>lt;sup>2</sup> See for example: Rabinowitz (2009), or at Timmons Roberts and Bradely Parks (2006).

between the years 2011-2020. Although the measures included in the original plan and its budgeting would not have sufficed to adhere to Israel's commitment<sup>3</sup>, the plan came to be a significant landmark, since it was the first time that substantial steps have been taken within a framework of a multi-annual program to mitigate emissions(Levy Roee 2015). As a consequence of the plan's interruption, it has become evident that at the present rate, Israel will not be able to meet its GHG emission reduction targets.

- c. In frame of AEJI' Climate Justice research, it was understood that an early transition to a low carbon economy is likely to be beneficial for Israel, both by giving her an advantageous in the international market for clean technologies and improving the efficiency of local industries. Furthermore, it stands to reason that in the future Israel will be required to mitigate its emissions, and therefore should preferably begin the process in a gradual manner. The halt of the national plan for the reduction of GHG emissions, had stimulated AEJI to initiate the economic research, as part of its Climate Justice Research Project.
- d. We have discussed two measures that could enable the State of Israel to mitigate GHG emissions originating from households, with no need for new budgetary resources. We further examine the implications of each of these measures in the context of environmental justice. The first set of tools focused on behavioral measures to mitigate emissions. A growing number of studies in recent years discuss the fact that often a change in the behavior of individuals can be achieved without exercising material incentives. The second part of the economic research work focuses onto one of the measures considered to be most effective for mitigating emissions a carbon tax. We explore the impact of said tax on different income deciles in Israel, and the possibility of applying an equitable carbon tax in the country.
- e. Finally, The research has studied the impact of climate policies on social justice in Israel, based on two main questions:
- 1. Do GHG mitigation plans in Israel lead to an increase or a decrease of disparities between socioeconomic deciles in Israel?
- 2. What impact do the measures for GHG mitigation have on poverty and vulnerable population groups in the country?

This article reviews in brief the different aspects of our work, including portraiting of the socioeconomic profile of CO2 emissions into the atmosphere, the methodology of the Carbon inequality index.

As indicated by the research, promoting climate justice in Israel must be based on the following principle of duality: formulation of policy measures directed at substantial mitigation of greenhouse gases, coinciding with these measures having positive social effects. The recommended measures were devised based on international experience, while adapting the international policy measures to the characteristics of Israel.

<sup>&</sup>lt;sup>3</sup> Ronen, Yaniv – Tracking the Execution of Government Decision – National Plan for the Reduction of Greenhouse Gas (GHG) Emissions – Decision No. 2508, Knesset Research and Information Center. Submitted to the Joint Interior-Labor Committee for Environment and Health. 1.2.2012; Report from the Durban Conference and Follow-up on the Implementation of the National Plan for Energy Efficiency and the GHG Reduction Plan, Joint Interior-Labor Committee for Environment and Health, Protocol 67, 2.12.2012. (In Hebrew)

#### B: Methodology - The Carbon Inequality index in Israel

The research analysis covers four areas of consumption: electricity consumption, transport; food consumption and solid waste production.

Using data produced by Israel's Central Bureau of Statistics and the Israel Electric Corporation, the  $1^{st}$  paper<sup>4</sup> focuses primarily on CO<sub>2</sub> emissions emanating from domestic electricity consumption (DEC) and private vehicle use (PVU). It has three analytical objectives. One, methodological in nature, is to develop indicators for comparisons of CO<sub>2</sub> emissions levels across different populations. Second is to apply these indicators for a comparison between emission levels of individuals belonging to the top and bottom income deciles in Israel. Third is to demonstrate the importance of environmental justice and its logic for the design and implementation of an effective and acceptable corrective climate policy.

The results suggest that when it comes to DEC and PVU, individuals belonging to the top income decile emit approximately 25 times more GHG than those belonging to the bottom income decile. This astounding gap, which as approximately 4 times bigger than the monetized consumption gap between the two said groups, illustrates the extent to which CO<sub>2</sub> functions as a multiplier of inequality.

The analysis process enable us defining of **Carbon Inequality Index** (CO<sub>2</sub> emissions from domestic electricity consumption), divided by the **Inequality Index in Consumer Spending** - per capita expenditure (in Israel I currency) in the top income decile divided by per capita expenditure in the bottom income decile. The ratio between the indices expresses **Carbon Inequality** (CO<sub>2</sub> emissions from DEC) as a multiplier of income inequality. Carbon Inequality (CO<sub>2</sub> emissions from DEC) as a multiplier of inequality in consumer spending, was used to other consumption categories and can be read here:

### C: Concluding Remarks, the relevancy of the Fair Carbon Tax Model for Climate Governance

This research is the first examination of distributional influences of a carbon tax in Israel. The research does cover a number of sectors, but it is still limited in scope. Only the direct impacts of the tax on prices of fuel, electricity and public transportation were examined, but not the influences on the entirety of products in the economy; it focuses on short term impacts and only examines CO<sub>2</sub> and not all GHG. As for distributional impacts, our study is based on examining the change among households in relation to their annual income. Follow-up studies should further examine the changes in relation to permanent income, the anticipated lifetime mean income. Furthermore, methodologically, the examination should be applied to additional surveys of the Central Bureau of Statistics, since the results of expenditure and income surveys tend to fluctuate to a degree.

Despite its limitations, the part of the economic research presents a number of important conclusions concerns Israel and the international community.

The first is that should carbon tax revenues be used to increase state revenues, the tax is expected to be regressive and more detrimental to the lower deciles. However, the influence of a carbon tax is not expected to be as dramatic as might have been expected. A tax of NIS 130 per ton of CO<sub>2</sub>, which is not low compared to taxes used around the world, or mentioned in literature, in any case would not increase expenditure on consumption by more than one and a half percent of income.

<sup>&</sup>lt;sup>4</sup> The link for the full paper on page 4.

It seems that households should be able to afford the carbon tax (which is lower than some of the tax increases noted in recent years), yet the tax should still not be regressive.

Our study suggests two options to promote an equitable carbon tax – the appropriation of all tax revenues to citizens by means of a 'carbon dividend', making the tax progressive rather than regressive. Beyond the fact that such a dividend is just, as it would lead to mitigating inequalities, it would make the tax more acceptable by the public. Another option is to reduce VAT and thus offset regressive impacts of the carbon tax. The peril of this option is that residents would not feel the VAT decrease, as it would expand across many sectors, whereas the increase in energy prices would be more evident. There is also a risk that VAT might be reelevated whenever the state digresses into a large deficit, whereas a carbon dividend might be harder to cancel.

In any case, it is clear that by means of the two suggested solutions an equitable carbon tax can be promoted, a critical tool for the Israeli effort to mitigate greenhouse gases.

### References of the full reports:

Please find here the different research reports, conducted in frame of climate justice research:

- 1. Climate Justice in Israel Position Paper no. 1 Inequality in Greenhouse Gas Emissions from Domestic Electricity Consumption and Private Car Use (2010) –<u>Link</u>
- 2. Climate Justice and Economic Policy Report No. 1 Social Prism Analysis of Greenhouse Gas Mitigation Policies And Recommendations for Advancing Climate Justice in Israel. <u>Link</u>
- 3. Climate Justice and Economic Policy Report No. 2 Suggestions for Israel's Climate Policy Behavioral Tools and the Possible Introduction of a Carbon Tax (2015) – <u>Link</u>