



**Budgeting Policies  
of Plans for GHG  
Emissions Reduction  
and Adaptation to  
Climate Change –  
International  
Comparison**

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Editors:

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*\* Abbreviated English version*

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## **Budgeting Policies of Plans for GHG Emissions Reduction and Adaptation to Climate Change – International Comparison | Abbreviated English version**

During 2016, substantial progress was made in the international effort to address climate change: the Paris agreement was ratified; a new international agreement was reached on mitigating GHG emissions in the aviation sector; and an amendment was made to the Montreal Protocol concerning the reduction of use of HFC chemicals that contribute to global warming.

However in Israel, efforts to mitigate GHG emissions and address adaptation to climate change are as yet insubstantial. This document examines budgetary indications related to climate change in a number of countries, in effort to study how the issue is prioritized and to learn lessons from international experience that might be pertinent to Israel's climate policy. It then continues the exploration of climate budgeting via its revenue potential, which can be increased as countries mitigate their emissions by means of carbon taxation or sale of emission permits. Almost all OECD countries presently implement carbon pricing policies.

### **A – Expenditures: Budgeting of Activities Associated with Climate Change**

#### **Control and Monitoring of Environmental Expenditures in the OECD**

Most developed countries (with the exception of the USA) do not conduct methodic analysis of expenditures addressing climate change. However, OECD data can be used to compare the total expenditure on environmental objectives, specifically issues associated with air pollution and climate.

In 2014, OECD member states spent an (unweighted) average of about 1% of their national budgets on environmental protection. As can be observed in **diagram 4**, Israel's expenditures are substantially lower than average, and Israel is ranked 26<sup>th</sup> of the 27 countries for which data is available<sup>1</sup>.

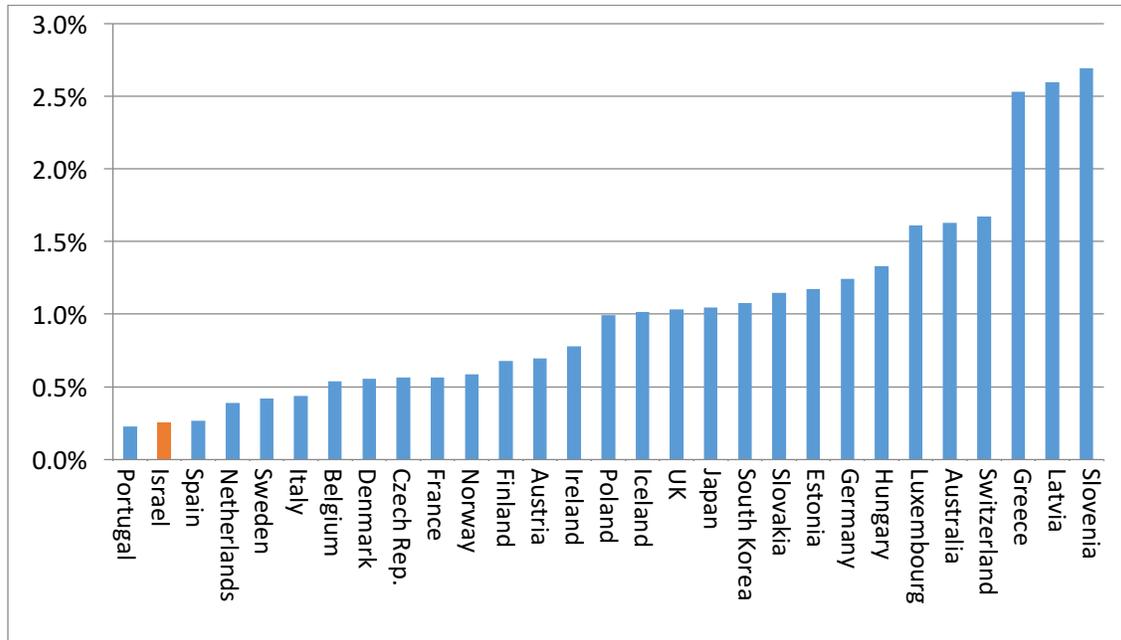
An additional way of examining environmental expenditure is via the OECD's Classification of Environmental Protection Activities (CEPA) database, which defines Air and Climate as one of nine types of environmental activity. **Diagram 5** details the expenditures of the public sector as a whole on air and climate (only) as a rate of the total national budget. In the absence of more accurate data, these expenditures can serve as indicators to the rate of expenses intended for climate related activities. However, the expenditures in the diagram include not only climate activity, but also, for instance, efforts to reduce local air pollution. On the other hand, these expense do not cover all climate related expenses comprehensively, as the majority of expenditures on adaptation to climate change are probably not defined or included under Air and Climate. The advantage of using this data is that it enables international comparison between OECD member countries, according to a uniform standard.

As can be observed in **diagram 5**, Israel ranks low also with regard to Air and Climate related expenditures, despite the relatively heavy air pollution in the country.

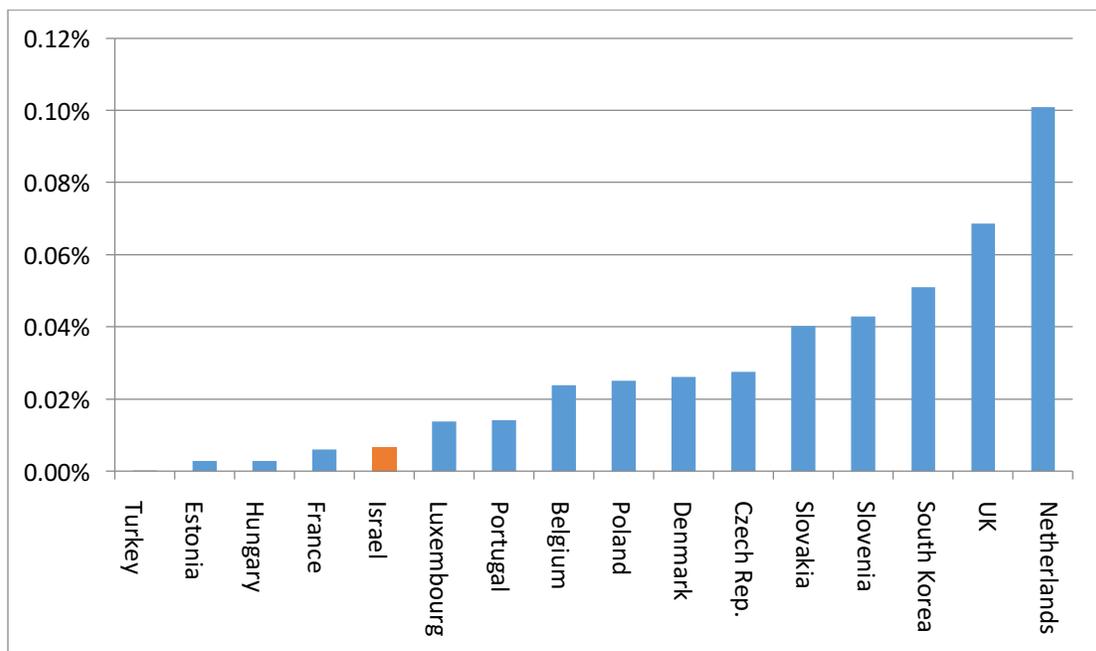
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<sup>1</sup> An examination of local government activity, in addition to that conducted by central government, slightly increases the rate of environmental expenditure in Israel, but the expense are still relatively low in comparison with OECD average.

**Diagram 4: Environmental Expenditure as a rate of National Budget in OECD Countries, 2014<sup>2</sup>**



**Diagram 5: Environmental Expenditures Related to Air and Climate<sup>3</sup>**



<sup>2</sup> OECD Stat – Government Expenditure by Function (COFOG), Transaction: Total Government Expenditure, Sector: Central Government, Function: Environmental Protection / Total Function. For Australia and South Korea there is no 2014 data available, therefore the data used is from 2013. All data refers to the national level and not to local government or regional levels.

<sup>3</sup> Air and Climate Expenditure: OECD Stat – Environmental Protection Expenditure and Revenues. Tables: Public Sector, Expenditure: Expenditure I, Sector: Air. Total government expenditure: OECD Stat – Government Expenditure by Function (COFOG). Transaction: Total Government Expenditure, Sector: General Government, Function: Total Function. The expenditures according to the most up-to-date data for each country: Turkey and UK – 2010; Estonia, Hungary, South Korea, Netherlands – 2011; France, Belgium, Slovenia – 2012; Israel, Luxembourg, Portugal, Poland, Denmark, Czech Republic, Slovakia – 2013.

## Israel

In light of the understanding that expenses pertinent to climate change are connected to a variety of issues, and following the Copenhagen Climate Conference (COP15, 2009), an inter-ministerial committee was formed in early 2010 to formulate a National Plan for the Reduction of GHG Emissions. The plan, at a cost of NIS 2.2 billion to be spent between the years 2011-2020, was approved in November 2010. In practice, following budget cuts resulting from the Trajtenberg Committee, an initial budget of NIS 509 million was approved for the plan in 2011-2012. This sum was approximately 0.07% of the total 2011-2012 national budget. While this is not a particularly high rate (as a reference, for instance, it is less than one quarter of the budget rate diverted to climate change in the USA), at least this budget was concentrated in an organized manner, dispersed and appropriated between ministries and planned for the long term. However, in May 2013 the government had decided to freeze the plan, consequently cancelling it altogether by the 2015-2016 budget.

The 2015 national budget features two budgetary regulations that explicitly address the mitigation of GHG emissions, with only about NIS 10 million allocated to these goals<sup>4</sup>. In preparation to the Paris Agreement, the government had decided to develop a new GHG reduction plan, which was approved in April 2016<sup>5</sup>. However, resources allocated for it by the government are relatively low compared to the previous emissions reduction plan. The decision includes two budgetary items: NIS 300 million in commitment for energy efficiency investment grants (considering the sum is in commitment for future years, it is difficult to estimate over how many years the budget will be dispersed and the impact this commitment would have on the annual budget), and NIS 500 million in State Guaranties for the years 2016-2025 (of course the budgetary costs of the guaranties is significantly lower than NIS 500 million, and depends on the rate of realization of guaranties). Thus far, in 2016 the amount budgeted de facto to reduce GHG emissions is only NIS 10 million.<sup>6</sup>

There are, of course, budgetary expenditures indirectly related to climate change. Thus, for example, the Air Quality Division in the Ministry of Environmental Protection focuses, among other things, on climate change. The division's budget in 2015 was NIS 29.3 million (though in practice, its implementation was only NIS 9.3 million during that year). Actions for the protection of the coastal cliff are also pertinent to climate change adaptation. Furthermore, car scrapping or the promotion of public transportation could lead to mitigation of GHG emissions, though clearly emission reduction is a secondary goal in such activities. Furthermore, as diagram 4 indicates, in activities generally associated with the environment, Israel is also lagging behind most OECD member countries.

## B – Revenues: Increasing National Revenues by Pricing Carbon

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<sup>4</sup> The referenced regulations are: actions to mitigate GHG emissions (within the work of the Ministry for Environmental Protection); and a track for GHG emissions reduction (in the Ministry of Economy and Industry). Source: Execution of Detailed Budget by Regulations – data for 2015, General Accountant Division, Ministry of Finance.

<sup>5</sup> Government decision 1401 – National Plan for the Implementation of GHG Emissions Reduction and Energy Efficiency Targets, 10 April 2016.

<sup>6</sup> The only budgetary allocation explicitly mentioning climate change or GHG reduction is the GHG emissions reduction track in the Ministry of Economy and Industry's budget.

Activities associated with climate change can also generate revenues for the national budget, by means of carbon taxation or sale of emission permits. Carbon pricing is considered to be one of the most effective ways to mitigate emissions, and the number of countries pricing GHG emissions has been growing rapidly in recent decades. Presently, all OECD countries price carbon either on the national level, the regional level, or in the framework of an international program, with the exception of Israel and Turkey, as detailed in **Table 1**.

The consequence of Israel's limited activity in combatting climate change, in terms of both revenue and expenditure, is not only that it does not contribute its fair share to the global effort to mitigate GHG emissions, but also that Israeli entrepreneurs would lag behind in the development of green technologies; that Israeli industry would struggle to thrive in the transition to a low carbon economy; and that the state will be more exposed to damages caused by climate change. Ironically, the fact that Israel is yet to price carbon can constitute an opportunity, too. By means of carbon pricing, the state can encourage the private sector to reduce GHG emissions and develop low-carbon technologies, and at the same time increase public budgets for activities that can be advanced primarily in the national level – such as investment in new infrastructures that are necessary for the country's adaptation to global warming.

## **Summary and Conclusion**

An examination of budgets associated with climate change in a number of countries, reveals that in the USA approx. 0.3% of the federal budget is dedicated to climate change, while in member countries of the European Union about 4% of the budget focuses on the issue. In Israel, the National Plan for the Reduction of GHG Emissions approved in 2010, constituted a mere 0.07% of the budget. Although this is a relatively low rate, the budget was concentrated and structured, appropriated to relevant ministries and planned for the long term. However, since the cancellation of the plan, the budget addressing climate change is negligible. In 2015-2016, the amount allocated to budgetary items that refer directly to climate change was only about 10 million NIS, and the new GHG mitigation plan cannot generate sufficient improvement from a budgetary perspective. A comparison based on OECD standards also reveals that the environmental expenses as a percentage of the national budget are low in Israel, in relation to most of the organization's member countries.

Despite the generation of a new plan to address climate change in Israel, at this stage the plan has no significant budgetary impact. As it is, it does not seem like the government intends to increase the budget in a substantial way in upcoming years. The governmental economic plan proposal for 2017-2018 has no mention of a new emissions reduction plan. In fact, the terms GHGs or climate are only mentioned once in the document (as benefits of Green Taxation Reform 3). The 2017-2018 budget proposal further features a reduction of NIS 70 million from the NIS 300 million budget previously allocated to energy efficiency investment grants, suggesting this sum will be budgeted by funds transferred from KKL-JNF to the Ministry of Environmental Protection.

Israel could relatively easily bridge the budgetary gap by means of carbon pricing. Presently, it is one of the only two OECs members not to apply such a mechanism, which could prove to be an opportunity for a fast and effective instrument (low-hanging fruit) to increase revenues and use them to fund much-needed emission mitigation and other climate related activities.

**Table 1: Carbon Pricing in OECD Countries<sup>7</sup>**

Country	International Plan	National Plan	Local Plan
Australia		Trade of emission permits under certain conditions (starting in 2016)	
Austria	ETS		
Belgium	ETS		
Canada			Carbon tax in British Columbia; trade of emission permits in Quebec; in Alberta there is carbon pricing in industry and more extensive carbon taxation starting in 2017
Chile		Carbon tax imposed starting in 2017	
Czech Republic	ETS		
Denmark	ETS	Carbon tax	
Estonia	ETS	Carbon tax	
Finland	ETS	Carbon tax	
France	ETS	Carbon tax	
Germany	ETS		
Greece	ETS		
Hungary	ETS		
Iceland	ETS	Carbon tax	
Ireland	ETS	Carbon tax	
Israel			
Italy	ETS		
Japan		Carbon tax	Trade of emission permits in Tokyo, Kyoto and Saitama
Latvia	ETS	Carbon tax	
Luxembourg	ETS		
Mexico		Carbon tax	
The Netherlands	ETS		
New Zealand		Trade of emission permits	
Norway	ETS	Carbon tax	
Poland	ETS		
Portugal	ETS	Carbon tax	
Slovakia	ETS		
Slovenia	ETS	Carbon tax	
Spain	ETS		
South Korea		Trade of emission permits	
Sweden	ETS	Carbon tax	
Switzerland		Carbon tax and trade of emission permits	
Turkey			
United Kingdom	ETS	Carbon tax (applied if the ETS price of carbon is lower than a minimal threshold)	
United States			Trade of emission permits in California and the North East of the US (RGGI)

<sup>7</sup> The table is based on annual World Banks reports (World Bank, 2016a 2016b).

The Association of Environmental Justice in Israel (AEJI) is a non-partisan, independent body, established in 2009, focusing on basic issues of environmental justice. AEJI concentrates on the inter-connectedness of society, environment and the decision-making framework in Israel to produce policy recommendations that are real and acceptable. AEJI also promotes the strengthening of democracy, equality and environmental justice values, while promoting active deliberated civic participation, especially of minorities and residents of the periphery. The Association is active in three main fields:

- A. Data collection, initiation of research and working papers that attempt to elucidate the core issues of society, environment and the decision-making framework and develop acceptable solutions.
- B. Development of policy tools that promote a policy based on the values of democracy, equality and environmental justice.
- C. Increasing civic participation in matters of environmental justice and decision-making processes regarding environment and society, as well as empowering civil society especially among vulnerable groups such as minorities and residents of the periphery.

For additional information please contact us:

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