



ENVIRONMENTAL FISCAL REFORM IN THE MENA REGION. THE CASE OF EGYPT: LESSONS AND CHALLENGES

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The Middle East and North Africa (MENA) region is in a transition towards a system based on clean energy and an environmentally sustainable economy. This requires the countries of the region to carry out structural reforms and develop roadmaps for the implementation to facilitate systems. In this way, it will be possible for these reforms to secure global climate objectives and foster economic growth and innovation in the region.

One of the central elements for an economically sustainable transition is the tax system, which is not only a disincentive for environmentally harmful economic activities, the goal of the so-called pigouvian tax, but also the main source of revenue for the public sector and thus for social services and social protection systems (Schlegelmilch & Joas, 2015).

However, the various states in the region have different political, economic and geographical circumstances, such as different availability of natural resources, different political regimes, different levels of political instability in the wake of the Arab Spring, different levels of inequality and political-economic approaches to resolve it, as well as, in the case of their tax systems, variation in elements such as the size of the economy or the colonial heritage of tax systems (Mansour, 2015). Consequently, this policy brief will focus on Egypt, a fossil energy

producer, where, as we will see, although some fiscal reforms have been implemented, there is still a long way to go to achieve a sustainable economy and an effective social adaptation system.

Egypt: background and starting point towards a sustainable reality

First, it is worth mentioning that MENA countries have some of the weakest tax systems in the world. Not only does the tax administration suffer from high levels of inefficiency and corruption, but collection rates as a percentage of gross domestic product (GDP) are the lowest, second only to South Asia and sub-Saharan Africa (Burkhardt & Tosun, 2020). For these reasons, as well as its reliance on revenues from the hydrocarbon sector, Egypt's tax-to-GDP ratio in 2020 was a dismally low 14.2% compared to the Organisation for Economic Co-operation and Development (OECD) average of 33.8% in the same year (OECD, 2021). This heavy reliance on oil and gas production is detrimental for two main reasons: (i) the lack of diversification of the economy, which leads to a high level of vulnerability to oil and gas prices on international markets, as happened in 2014 when oil prices fell, or during 2020 in the context of the COVID-19 crisis; and (ii) the several detrimental effects on the environment that directly undermine the global targets set for 2050, as the hydrocarbon industry generates emission levels that do not meet the established benchmarks for keeping global temperature rise below 1.5°C (Burkhardt & Tosun, 2020).

In relation to the latter, MENA countries signed up to the Paris Agreement in 2016 on climate change and provided their Nationally Determined Contributions (NDCs), i.e. their strategies to reduce emissions and mitigate the effects of climate change. The common factor among the different NDCs in the region was the objective of transitioning to renewable energies, and therefore reducing the weight of the hydrocarbon industry in the region's economies. In the case of some countries in the region, such as Morocco, Iran or Jordan, these measures have materialised in relevant fiscal reforms towards a carbon-neutral economy, such as the reduction of subsidies to non-renewable energies and investment in clean energy sources and green job creation (Friedrich Ebert Stiftung, 2015).

In the case of Egypt, the country stated in its NDC its goal of pursuing fossil fuel subsidy reforms to promote the use of cleaner energy sources but it did not establish a specific reduction target (OECD, 2018). It also does not have a carbon tax or an emissions trade system but it does have energy taxes on materials such as coal, petroleum coke, fuel oil, diesel, gasoline or natural gas and a tax on residential, commercial and public electricity consumption. Moreover, the country started reducing its spending on fossil fuel subsidies since 2014, reducing the initial amount invested by up to 90% (OECD, 2018; Reuters, 2021). However, these measures were not effective in reducing emissions and the use of non-renewable energy, which in 2020 accounted for 90% of the total energy consumption (IRENA, 2021). Although household consumption was reduced, electricity consumption by businesses increased as they shifted to cheaper non-renewable energies and enjoyed pre-tax benefits, the effects of which are essentially the same as a subsidy, as in the case of diesel, coal or paraffin (EIPR, 2017; Hussein, 2018).

Furthermore, although the number of subsidies was reduced, this was done across the board, without differentiating between subsidies to households and companies, and even, inconsistently, million-dollar subsidies were maintained for companies such as the Egyptian General Petroleum Corporation and the Egyptian Electric Holding Company, a procedure that lacked any kind of transparency or guarantee regarding the proper management of the resources received by the companies (EIPR, 2017).

Furthermore, the lack of gradualism of the measures, the lack of political transparency, and the failure to create a safety net either before or after the reforms led to unsustainable levels of inflation and an increase in electricity bills for individuals of up to 217% between the reforms and 2018, which placed a large part of the population below the poverty line (EIPR, 2017; Hussein, 2018).

In the light of the above, it is possible to argue that the region needs an effective tax reform to meet environmental and carbon neutral transition targets. Additionally, this reform should provide sufficient revenues to encourage economic growth, further diversification of the economy through investment in innovation and education, and to ensure the protection of the labour force affected by the reforms and a safety net for household energy availability.

The environmental fiscal reform: objectives and measures

Environmental Fiscal Reform (EFR) comprises a series of measures involving different public sector entities. As tax reforms concern the legislative branch of government, it is necessary for them to formulate policy proposals with the advice and evaluation of internal state bodies, such as the Ministry of Finance, other ministries that intend to achieve their objectives through the implemented tax system (e.g. Ministry of Labour, Ministry of Education, Ministry of Equality), and the public administration, which is in charge of overseeing and collecting revenues. Public participation of private sphere entities, such as National Oil Companies (NOCs) and civil society organizations (CSOs), must also be included in the process.

The participation of all the stakeholders is necessary, as it consists of a reform whose objectives are cross-cutting and are based on three basic pillars. Firstly, meeting the environmental objectives by discouraging investment and growth in all polluting industries and redirecting investment towards the promotion of renewable energies or other green industries (Cottrell et al., 2016). In the case of Egypt, this would imply an effective shift, especially from company consumption, from non-renewable energies to renewable energies, which only account for 10% of overall consumption (IRENA, 2021).

Secondly, the adoption of a robust green tax system that generates stable revenues. To ensure the stability of the system, the design of the reform must seek to strike a balance between environmental goals and fiscal goals (Cottrell et al., 2016). As we have seen in the case of Egypt, drastic reforms regarding subsidies affected consumption and thus reduced fiscal revenues in the long run (Mostafa, 2021). At the same time, the lack of a carbon tax measure resulted in a large part of the GDP still being dependent on oil and gas production as there is no incentive to switch to less polluting activities (Elshennawy & Willenbockel, 2021).

Finally, the investment of the generated fiscal revenues. This investment takes two forms, one in the short term to protect the most vulnerable sectors of society. In this respect, social compensation mechanisms must be created to protect consumers from the effects of energy price increases and transitory inflation (Schlegelmilch & Joas, 2015). As the International Monetary Fund (IMF) recommended to Egypt when they supplied the government with financial assistance, a safety net has to be created prior to the reform in order to protect households and guarantee universal supply of energy (Hussein, 2018). It is also necessary to protect the workforce affected by the reform and to implement the necessary measures to retrain these workers. None of these measures were implemented in the reforms adopted since 2014 in the country (Hussein, 2018).

Regarding the instruments, these can consist of the adoption of measures such as green taxes, removal of environmentally harmful subsidies, quantity instruments, or specific fees,

and they can be applied in different areas such as energy production, transport, polluting activities, and extractive activities (Milne & Andersen, 2012).

Each of these instruments contributes to the disincentive of polluting behaviours, for companies and for the consumers, and generates a series of fiscal revenues that should go towards promoting measures for equality and activation of the economy. However, it has been demonstrated that, of all of them, green taxes are the most complex, and at the same time the most effective, in terms of meeting the objectives mentioned in the previous section. Thus, we will focus on this instrument as well as on the removal of harmful subsidies in Egypt, as both constitute currently an opportunity to consolidate an environmental transition towards clean energies and stable fiscal revenues.

Green taxes: the path towards sustainability

Green taxes are understood as a series of fiscal obligations imposed on environmentally damaging activities that allow companies to internalise the cost of their negative externalities, and thus disincentivise them, as well as generating a series of revenues for public policy use (Cottrell et al., 2016). So far, they have not been implemented in any country in the MENA region; yet, in the light of the abovementioned reasons, they are an essential instrument for the ecological transition of countries such as Egypt. As far as the taxable event and the tax base are concerned, these have to be legislated as accurately as possible in order to avoid evasion by companies. One of the most common options at the international level is to use the amount of CO₂ as the tax base, which is intended to discourage the production and use of carbon emission products, such as oil and gas (Cottrell et al., 2016). In the case of Egypt, this would be highly effective to reduce the economic weight of the oil and gas industries and redirect investment towards renewable energies (Elshennawy & Willenbockel, 2021).

It is also necessary to establish whether such a tax is to be applied at the beginning or at the end of the supply chain. The most common solution is usually at the early stages of production, as it affects the rest of the process uniformly. However, sometimes, in order to ensure that the impact of the tax reaches the consumer (and therefore reduces consumption of the product and thus discourages production), it is necessary to impose the tax burden at the end of the process (Cottrell et al., 2016). In the case of Egypt, it is recommended to apply it at the beginning as the objective through this reform according to the current situation is to disincentivise companies to consume non-renewable energies, instead of putting the pressure on the households that are currently suffering elevated inflation levels.

On the other hand, an essential element to take into account is the level of the tax rate, which has to be high enough to discourage the production or polluting activity being taxed. A recommended strategy in this respect is the inclusion of low rates at the outset that are increased, in a programmed and announced manner, over time. This allows for a gradual transition on the part of the private sector, and an adaptation of the consumer to the short-term price increases generated by the reform (OECD, 2010). In order to control for the inflationary effects, it would be essential to start with low rates, which would have to increase at least to 20 dollars per ton and could reduce emissions by up to 10%. Furthermore, this economic modelling amount, which is considered the minimum to achieve Egypt's global targets, would raise up to 2.1% of GDP (Elshennawy & Willenbockel, 2021; OECD, 2018).

As regards the risks and limitations of such a measure, three main aspects need to be taken into account. First, the limitations to the breadth of coverage of such a measure. This is because a necessary measure, especially in the MENA region, would be the uniformity of green taxes and monitoring in order to avoid carbon leakages and therefore evasion, but the lack of integration in

the region clearly hinders this strategy, so that control must be limited to the national level, which reduces its effectiveness (Mansour, 2015)

Secondly, the short-term impact of the tax and the consequent reduction in oil and gas production are likely to increase inflation levels, directly affecting households' economic capacity (Cottrell et al., 2016). This is a phenomenon that, as mentioned before, has been observed previously in Egypt in relation with drastic fiscal changes regarding removal of subsidies. However, this risk is reduced by adopting gradually slowly increasing tax rates, as well as by investing tax revenues in compensatory measures and economic growth (Breisinger et al., 2018).

Furthermore, a constraint facing tax reform in Egypt is the fragility and inefficiency of the public administration in charge of monitoring and collecting tax revenues, affected by a lack of staff training, corruption and excessive centralisation (GAN Integrity, 2020).

Removal of environmentally harmful subsidies: need for changes

This instrument, although apparently simple, is extremely relevant for the countries of the MENA region since their energy consumption is heavily subsidised. Consequently, this leads to a serious misallocation of resources in favour of polluting energy industries.

In the case of Egypt, the government initiated a reform to reduce environmentally harmful subsidies from 2014 and is still being implemented today. However, the drastic reduction of subsidies led to an increase in energy prices¹ that exaggeratedly affected household incomes and led to an unsustainable rise in inflation (EIPR, 2017; Breisinger et al., 2018).

Furthermore, much of the reform focused on eliminating electricity subsidies for households, yet maintaining relevant advantages for firms, which did not create any incentive for companies to switch to renewables (EIPR, 2017; Hussein, 2018). Also, although subsidies on electricity from oil and gas were reduced, other non-renewable energies, such as coal or diesel, continued to enjoy pre-tax sales (OECD, 2018). As a consequence, industry switched to these energies, and the reform not only did not reduce the consumption of dirty energy by companies but actually increased it (Hussein, 2018).

It should be mentioned that no adequate safety net or effective compensation mechanisms were created, and that the only support measures only reached 20% of the poorest quintile of the population (Hussein, 2018). This has also proven to be one of the reasons why the reform has not led to an increase in the country's economic growth (Mostafa, 2021; Breisinger et al., 2018). Furthermore, there was no participatory and transparent legislative process or social awareness-raising measures (Mostafa, 2021).

Such reforms have already been carried out in countries such as Morocco and Jordan. In the case of Morocco, an open legislative procedure with extensive public awareness-raising programmes was carried out from 2012 onwards. In addition, subsidies were gradually phased out for all dirty energies, which not only met the objective of reducing consumption by companies, but also mitigated drastic impacts on the purchasing power of households (WRI, 2016).

In the case of Jordan, a reform of the environmentally harmful subsidies was initiated in 2012, and subsidies for the oil and electricity sectors were completely eliminated. To avoid a

¹ Rise in natural gas price by about 111%, as well as the prices of gasoline (types 95, 92, and 80) by about 6.8%, 40.5% and 77.8%, respectively, and of electricity (26%), among others (Mostafa, 2021).

negative impact on individuals, a system of transfer payments was created, which has proven to be effective in preventing an increase in poverty and a decrease in households' purchasing power (Aziz et al., 2015; Friedrich Ebert Stiftung, 2015).

Thus, although the process is already underway, the Egyptian government needs to make some changes to this measure. Firstly, the reform should be applied uniformly to all contaminating energy sources in order to prevent companies from shifting to cheaper dirty energy sources. Secondly, subsidies for household consumption and subsidies for companies should be differentiated, and the tax burden placed on the latter, not only to reduce the level of emissions but also to encourage investment in renewable energies. And, lastly, compensation measures should be established that reach broader strata of society with the aim of safeguarding household purchasing power and controlling inflation.

Recommendations

In the case of Egypt, the environmental tax reform can adopt two measures to reduce the level of emissions, encourage the use and production of renewable energies, generate sufficient fiscal revenues, and foster growth and innovation.

Firstly, Egypt could benefit from the imposition of a green tax on CO₂ emissions. It is recommended that this tax should be imposed at the beginning of the supply chain, i.e. that it should be aimed at a transition in energy consumption by companies. It is also recommended that it should be a gradual reform that allows the private sector to adapt and that it should start with a low rate that ends up reaching 20 dollars per ton of CO₂. It should also be borne in mind that this rate should be indexed to inflation levels in order to avoid reducing its effectiveness.

Secondly, regarding the ongoing reform in the country, the removal of environmental harmful subsidies should be applied to all fossil fuels that are still subsidised, i.e. coal, diesel and paraffin. This, together with the elimination of subsidies to oil and gas companies, should result in a reduction of fossil fuel consumption and thus a reduction of emissions.

Finally, two essential measures need to be taken at the social level. Firstly, the adoption of a system of transfers to enable households to bear the increase in electricity prices. As in the case of Jordan, this is possible thanks to the reinvestment of the revenues obtained through both fiscal measures. Secondly, the implementation of participation and transparency mechanisms that allow for greater social awareness and dialogue between all actors involved, as was the case in Morocco.

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