

# The Challenges in Financing of Green Low-carbon Investments in Republic of Moldova

*Provocările în finanțarea investițiilor ecologice  
cu emisii reduse de carbon în Republica Moldova*

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## Abstract

*The government of Moldova Republic has embraced the transition to green economy and is making efforts to translate the concept into its national policies. Moldova has developed a number of policy and strategic documents which provide the necessary legal and regulatory framework for the economy to move in this direction. However, such a transformation requires a holistic approach to policy-making and legislating, as well as a new mindset. In order to take adequate decisions, both producers and consumers need to become fully aware of the costs and benefits of future significant changes that our societies will be undergoing.*

**Keywords:** *energy efficiency, subsidy, natural resource, technology, climate change, infrastructure, adaptation, green investment, renewable energy, pollution, incentive, fossil fuel, public revenue, green project, policy, target.*

## Introductory remarks

Despite its ambitions and desires, currently, Moldova has one of the most energy and carbon intensive economies in the world. In addition, Moldova is poorly endowed with energy resources and is totally dependent on imported energy. In fact, Moldova imports around 96% of its energy needs. In 2014, the cost of energy imports amounted to about USD 1.1 billion, which was equivalent to 13.8% of GDP, or 20.7% of total imports.

With the growth of the economy, domestic demand for energy will rise. It is expected that by 2020 greenhouse gas (GHG) emissions will almost double compared to 2010 levels. At the same time, the country's aging energy infrastructure needs substantial modernisation. Most of Moldova's power generating plants are over 30 - 40 years old. The transmission network is also dilapidated and needs significant rehabilitation while obsolete energy technologies need replacement. The government is concerned that the country's high energy intensity is a major impediment to improving the competitiveness of our economy.

At the same time, Moldova's economy and natural resources are considerably vulnerable to climate change effects. The concern over climate change is particularly linked to impacts on agriculture and water availability, which directly affect many people in the country. All these challenges make a compelling case for shifting the economy onto a greener and more sustainable path of development.

In order to advance necessary reforms aimed at achieving low-carbon development, Moldova's government has set specific targets for different sectors and has prepared different scenarios for achieving these targets. The most recent and probably most comprehensive estimates come from the recent Nationally Determined Contribution (NDC) that Moldova prepared for the COP21 in Paris in 2015.

Moldova's NDC document identifies both conditional (on sufficient international support) and unconditional targets on mitigation and adaptation. The country's "unconditional" mitigation target is to reduce greenhouse gas (GHG) emissions by 64%-67% by 2030 below the 1990 level, whereas the "conditional" target is to reduce GHG emissions by 78% by 2030 subject to international support available to the country (including low-cost financial resources, technology transfer and technical cooperation).

In order to achieve its ambitious mitigation and adaptation targets, Moldova will have to make significant investments, including in infrastructure projects, in the energy, transport, buildings, industry, agriculture, land use, land use change and forestry and waste sectors. Implementing the "conditional" targets, identified in the NDC, would cost about USD 4.9-5.1 billion (about USD 327-340 million per year) until 2030. Although the costs of the scenarios vary, achieving low-carbon economic growth will require significant domestic resources but also international support.

Despite these significant needs, the level of green domestic investments, both public and private, remains low. A recent OECD study estimates that in total over the period 2010 - 2015, the government of Moldova, supported by donors and IFIs, spent about USD 107 million on energy efficiency and renewable energy. This is not a trivial amount for Moldova. However, compared to investment needs to achieve green objectives and targets, financing needs to be significantly scaled up. With the current challenges in the public sector, ensuring access to long-term private finance for green investments becomes an important task for the government.

### **Demand for environmental finance**

We can estimate the demand for green finance, but how do we meet it? There are a number of actions that a government can take but I will group them into 2 main and related ones, namely: 1) creating the right incentives for economic actors to undertake green investments; and 2) providing an appropriate framework for investment.

#### **(a) Creating the right incentives**

Policies should be based on "Polluter pays principle" and should provide clearly-defined structure of incentives and sanctions: Polluters are expected to pay for the actions needed to meet requirements. This principle apportions

responsibility for meeting policy goals and targets and must be combined with a clearly defined structure of incentives and sanctions for non-performance.

For example, the Ministry of Environment establishes regulations covering water, air, waste. These policies focus on directly reducing pollution by requiring polluters to limit discharges in time and place to a prescribed level. However, these limits are not always enforced and the government has established a whole lot of pollution charges which supplement the pollution restrictions. However these charges are rather low to stimulate polluters to invest.

Pollution and natural resources need to be priced appropriately in order to bring environmental improvements and stimulate innovation. None of our countries, apart from Kazakhstan, through their Emission Trading Scheme (ETS), have considered putting a price on carbon which is crucial in motivating more low-carbon investments.

Many types of policies and approaches affect low-carbon performance of economic agents. Our policy frameworks, often created 10-15 years ago, to support economies built on fossil fuels, need to be adjusted to reflect new economic realities. The environmental components of sector policies, particularly for industry, energy, and agriculture, and macroeconomic and trade policies that influence prices and the incentives for using resources need to be reconsidered and aligned with new policy and societal demands.

While the main thrust of these policies is to encourage enterprises and households to undertake appropriate actions, enterprises will respond more favourably if they have the flexibility to do so at the lowest possible cost. Policies that provide a range of technological or process options to meet requirements help reduce barriers and costs in accessing new green technologies (e.g., minimal import duties) and ensure adequate competition in the supply of technologies.

The removal of perverse incentives that encourage excessive use of energy or water resources can also advance green goals and can help level the playing field for the entry of clean energy sources. The OECD has recently conducted a study on "Energy subsidies in the EU Eastern Partnership (EaP) countries" implemented with support by the EU which shows that despite significant progress in phasing out inefficient energy subsidies, they continue to persist and distort economic decisions by both producers and consumers. While gas and electricity tariffs were recently significantly increased, tariffs still remain below cost-recovery levels. In addition gas, electricity and heat household consumption enjoy a reduced VAT rate which results in significant revenue forgone for the public budget. However, reducing subsidies for conventional fossil-fuel generated energy and moving to market-based prices

should only be done in a socially acceptable manner, taking care of the poor and vulnerable people in the country.

At the same time, green tariffs for renewable energy which have actually been introduced in a number of countries in the region provide the right incentives to investors interested to finance clean sources of energy. While in Moldova, renewables are still a small share of the energy mix (about 11%, mostly biomass), solar and wind energy are particularly appropriate given Moldova's climatic conditions and the government is planning to further exploit their potential.

#### (b) Appropriate investment framework

As many of the actions aimed at achieving a low-carbon economy involve large, upfront investment outlays, enterprises' access to capital is an important determinant of their green performance. An appropriate legal and policy framework to allow capital markets to function properly and a strong banking sector are essential prerequisites for investments.

Banks, which dominate the financial sector, are the main source of long-term financing in Moldova, with lending offered at an interest rate of about 13% and for a period of 2 to 5 years. In 2015, Moldova suffered a serious banking crisis which led to large capital outflows. The official level of non-performing loans as a share of total gross loans is among the highest in the EaP region (about 15% in 2013). Some of the main structural weaknesses of the banking sector include poor governance of banks and the lack of transparency. In addition, there is a lack of well-functioning equity or investment funds which can help leverage commercial banks' debt and support riskier start-ups in green investment projects.

Under these conditions, basically, all long-term financing for green investment projects in Moldova comes from environmental credit lines provided by IFIs and disbursed through a number of local banks. While loans from these credit lines are not necessarily cheaper, banks and borrowers can benefit from technical assistance, provided through donor funds, and longer repayment periods, which makes the financial products offered through the credit lines more attractive. The EBRD is the main financier and provides credit to commercial banks in Moldova to support investments in energy efficiency in the residential sector. Another study that OECD is currently working on focuses on identifying opportunities to increased environmental lending in the region. By studying the experience with designing and implementing IFI-backed environmental credit lines, the study aims to analyse what governments need to and can realistically do in order to stimulate more green lending in our countries. Moldova is included in the study which will be launched early next year and we are looking forward to its results.

Generally, local banks lack necessary technical skills to adequately structure innovative environmental lending products. Such products require significant investment in terms of staff time, information systems, credit and risk assessment procedures, eligibility checks, reporting procedures, and product marketing. As a result, local bank experience high transaction costs and even negative profitability in the early phase of testing such products. These concerns make local banks risk averse and discourage them from exploring this niche.

Investors also need access to affordable and appropriate technology. Policies related to business start-up, effective procedures for certifying new clean technologies, stable incentive mechanisms that can help reduce risks to investors (e.g. political/regulatory risk insurance and guarantees), minimal customs duties or import taxes, can help ensure this access. While Moldova has introduced a number of incentives to attract private investors (including the creation of Free Economic Zones and Technology Parks), the penetration of new clean technologies is very low.

Moldova is still lacking mechanisms to properly promote technology innovation and transfer. Moldova practically does not provide any support to R&D, including on green technologies. Despite its potential and well educated workforce Moldova has not registered any environmental/green patents so far. This is obviously an area where the government needs to do more but also with the financial and intellectual support from the developed countries to introduce and disseminate already existing technologies in our countries.

Given the significant financial needs required to transform our economies, it is obvious that the private sector has a major role to play in the years to come. However, in the transition to a low-carbon economy and in order to ensure a level-playing field for clean energy, the availability of public funds will be crucial in unlocking investments in green projects.

## **Conclusion**

Moldova is working hard to mobilise domestic resources through its Energy Efficiency Agency, Energy Efficiency Fund, Social Investment Fund and National Environmental Fund. Data also show that Moldova ranks among the top 10 countries of Europe that benefit from external assistance. This is encouraging and we hope that more will be made available including through new climate-related sources of finance. However, to play a strategic role in financing, public funds, be it domestic or international, need to have appropriate disbursement policies that can help leverage private funds but also minimise the potential of crowding out private sources of capital where available. With this in mind, the OECD is also launching a project which aims to assist the government of Moldova with designing a green public investment

programme, in line with good international practices. This work will also seek to strengthen government capacity in long-term public investment planning, which is an essential skill the public sector needs when working on the shift to a low-carbon economy.

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