



Seventh “Environment for Europe” Ministerial Conference

**Astana, Kazakhstan
21–23 September 2011**

Public private partnerships and innovative financial mechanism for green infrastructure investment

Submitted by UNECE

INFORMATION DOCUMENT



UNITED NATIONS

Economic Commission for Europe

Seventh “Environment for Europe” Ministerial Conference

Astana, 21–23 September 2011

Item 4 and 5 of the provisional agenda

Sustainable management of water and greening the economy

Greening the economy: mainstreaming the environment into economic development

Public private partnerships and innovative financial mechanism for green infrastructure investment *

Background

The series UNECE Public-Private Roundtables on Green Economy was jointly created by the United Nations Economic Commission for Europe and London Business School Carbon Club with the aim of engaging the private sector as a major group and stakeholder in the upcoming Seventh Ministerial Environment for Europe Conference, 21 - 23 September 2011, in Astana, Kazakhstan. Launched in March 2011, the series brought together leading figures from the public and private sectors to discuss how to engage the private sector in infrastructure investments for the green economy and to forge actionable outcomes in this regard. These outcomes would also form part of the region’s inputs into the 2012 United Nations Conference on Sustainable Development (Rio+20), 4 - 6 June 2012, in Rio de Janeiro, Brazil.

The Roundtables will be accompanied by a larger edition on Investing in Green Infrastructure to be published by the United Nations in 2012, which will draw on the research and public policy work done by London Business School, the larger United Nations system and other contributors.

In order to deliver on its growth, development and poverty objectives, the green economy transition requires massive investment across the economic and natural resource sectors, as well as for research, innovation and the deployment of technologies. Although it is difficult to quantify the investment needs of the green economy, UNEP estimates that US\$ 1 and 2.5 trillion dollars per annum will be required to build the green economy across the sectors worldwide. The private sector share is estimated to be in the range of eighty per cent. Additional investment needs were found to be dominated by the transport sector (50 per cent), followed by the buildings sector (26 per cent), the energy supply (20 per cent) and industry (4 per cent).

Infrastructure accounts for the bulk of the costs of transitioning to a low-carbon green economy. Addressing infrastructure needs is a particularly pressing concern since the infrastructure we build today will shape the way we produce and consume for the decades to come. Most infrastructure assets have a lifespan of more than thirty years.

In the post-crisis environment, infrastructure investment has received renewed interest among policymakers and investors, on the back of its potential to generate a high social return and as an instrument for creating jobs. However, due to ongoing fiscal retrenchment, public investment cannot keep up with demand or needs and will have to create and put in place the financial mechanisms that can optimally leverage private sector financing to deliver on these investments.

* This document was not formally edited.

The three roundtables focused on a few pertinent themes for green infrastructure investment, namely, full-cost pricing and innovative financing mechanisms. Good practice examples of public-private collaboration in green infrastructure investment were discussed and analyzed.

The importance of these themes for investors in their quest to achieve a low-carbon, green economy is further underlined by the 2010 Invest Statement on Catalyzing Investment in a Low-Carbon Economy. Large strategic and institutional investors that manage very large private sector holdings have called on policymakers to act swiftly to implement measures to stimulate green investment, including:

- Policies that put an effective price on carbon such that businesses and investors reassess investment value and redirect their investments;
- Energy and transportation policies to vastly accelerate deployment of energy efficiency, renewable energy, green buildings, clean vehicles and fuels, and low-carbon transportation infrastructure; and
- Financing mechanism that can mobilize private-sector investment on a larger scale.

Full-cost pricing

Market failures and externalities specific to the green economy provide the principle rationale for public policy intervention. Correcting for these by putting a price on pollution and greenhouse gas emissions and on the over-exploitation of a scarce resource should be central is an important component of any policy mix regardless of the economic sector.

Pricing changes incentives of economic agents and effects behavioral change. Pricing policies are a central element in the transition towards a greener economy. Full-cost pricing means that a price of a transaction includes the external cost it imposes on society through environmental damages. In practice, full-cost pricing for the green economy encompasses carbon and may also cover areas such as local pollution, waste and agriculture.

Carbon pricing is seen as a central element of a policy mix to create suitable investment incentives for green infrastructure investments. Whether this should be delivered through a carbon tax or cap-and-trade system, like the European Emission Trading System (EU-ETS) is open to debate. Either policy instrument is cost-effective and generates public revenue that can be channeled to further enhance welfare. Taxes carry lower administrative costs and can be administered through existing institutions.

Although the internalization of externalities to reflect their true costs is important to leverage private capital, the volatility of carbon prices under cap-and-trade distorts investment decisions of firms who need to commit to investments that often involve substantial sunk costs. In addition, uncertainty surrounding the policy regime can further deter investment.

The introduction of full-cost pricing is fraught with difficulties. Pricing instruments can face fierce opposition due to their distributional implications. Furthermore, fears about competitiveness and so-called leakage – whereby companies relocate their carbon-emitting production activities abroad in countries with laxer carbon regimes -- in the absence of international cooperation may impede the introduction of such pricing instruments. In general, taxes are more ‘visible’ as compared to tradable permit systems and, hence, may be less amenable to easy adoption and compliance with.

Full-cost pricing therefore requires a suite of coordinated policy reforms. To make full-cost pricing socially and politically acceptable, governments need to take complementary measures such as compensating vulnerable groups for their adverse income effects.

Innovative financing for the green economy

There are many mechanisms that can be – or are already being – successfully applied to leverage private financing for green public infrastructure projects. In this respect, the experience in the United Kingdom, but also Canada and Australia, is instructive. These countries have adopted the Private Finance Initiative (PFI) type of approach, whereby the public sector decides what type of project it wants and the private sector then designs, finances, builds and operates it – usually on a contract of 25-30 years that includes full maintenance. At the end of the contract, the public sector receives the project back. In the United Kingdom, since the PFI was first devised in 1992, more than £70bn of capital has been raised through this mechanism.

The popularity of the PFI is based on the perception that it transfers risks, and is efficient. It is attractive to cash-strapped governments as they do not have to raise the capital at the outset and because the borrowing is private, it often does not formally count as public borrowing, thereby making public finances look more favorable. Nevertheless, it has also attracted criticism due to questions about its highly lucrative nature for private partners who can make big equity gains in which the taxpayer does not share; fees for financial consultants, lawyers and others to get the projects off the ground; and the large public debt overhang it has created. PFI contracts are also very inflexible, making it costly to adapt to changing needs. There is therefore considerable scope to improve upon such a mechanism and to appropriately tailor it to a green economy, country-specific context.

There are alternatives to the classic PFI approach that should be further explored. Equity investors could take the initial construction risk with cheaper public sector debt either used for, or replacing, private debt. An element of either debt or equity could be guaranteed by the government, reducing its cost. Or much shorter-term finance could be used, with the government taking the risk over the cost of replacing that finance later on.

Furthermore in face of the large private funds required, capital markets participation in infrastructure financing is necessary, utilizing its depth and high liquidity features. Public structured, risk transfer mechanisms should facilitate the much needed wider participation of institutional mainstream investors.

Way forward

Mechanisms to leverage private capital for the green economy are very important tools to transition to the green economy, considering the scale of investment needed and the role that private finance will need to play given the current widespread public budget cuts in the post-crisis environment.

In order to leverage the investment, correcting for externalities by putting a price on pollution and greenhouse gas emissions and on the over-exploitation of a scarce resource should be a central component of any policy mix regardless of the economic sector. In particular, carbon pricing is a necessary element of the policy mix to create suitable investment incentives.

Further, it is clear that there is huge scope for sharing lessons learned and best practice from countries that have considerable experience in innovative financial mechanisms for infrastructure investment that could be adapted and applied to country-specific contexts in supporting the transition to a low-carbon, resource-efficient, and resilient economy. Governments should consider allocating increased funding to help build the capacity to develop, adapt and apply the relevant financial mechanisms for green infrastructure investment.