



ROUND TABLE

Environmental fiscal reforms



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Poverty reduction;
India

Abstract The paper presents concepts and instruments of environmental fiscal reforms (EFR) and their application in the Indian context. EFR can lead to environmental improvement more efficiently and cost effectively than traditional regulation. There is substantial experience of successful EFR implementation in the European Union. India has also adopted some EFR measures such as deregulation of petrol prices, coal cess, and subsidy for setting up common effluent treatment plants. The challenges of implementing EFR measures in India are also discussed, including inadequate analysis, policy framework and institutional capacity, as well as conflict with poverty reduction and building political support.

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Academic prologue

Introduction

The term environmental fiscal reforms (EFR) refers to a range of taxation and pricing measures that can raise fiscal revenues while furthering environmental goals. Environmental fiscal reform approaches and instruments complement and strengthen regulatory and other

approaches to fiscal and environmental management. By affecting market prices, EFR can potentially lead to achievement of environmental objectives much more efficiently and cost-effectively than command-and-control (CAC) based regulatory measures. Environmental fiscal reforms can also contribute to poverty reduction and development goals in developing countries. In theory, this may be achieved in two ways: 1. reducing pollution and conserving natural resources which helps to sustain livelihoods and fosters wellbeing of the poor, and 2. revenue generated through EFR which can be used for other pro-poor measures.

Environmental fiscal reform instruments

The range of EFR instruments is wide and different measures may be required and be more appropriate for different countries and sectors. While there could be no

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simple generalization, they fall into the following broad groups (GIZ, 2013; World Bank, 2005).

Charges and fees

User charges cover the cost of collective services associated with the treatment or disposal of the pollution associated with the consumption or use of a product. User charges could be in the form of a charge for providing the energy/water supply or collection of solid waste/waste water. These charges help create a strong incentive for resource efficiency and cleaner technologies by discouraging emissions, waste generation, and use of environmental resources. On the other hand, social considerations of charging for services, like water, from very poor households also need to be taken into account. Due to resultant political considerations, there is always a concern that it may lead to charge rates that do not cover the actual costs of the service provided.

Environmental subsidies

Government institutions provide direct or indirect financial support to promote resource efficient and cleaner production and services. This is used as a tool to promote innovation, or to facilitate adaptation to new legal frameworks or to preserve environmentally sound structures and production processes. Such subsidies are a potent instrument to influence investment and purchase behaviours in a very short period of time. On the other hand, they do tend to strain public budgets and interfere with normal market development processes.

Governments also provide substantial subsidies on energy and natural resources to keep such vital resources/services affordable. However, such underpricing leads to wasteful use leading to resource depletion and environmental degradation, besides imposing significant fiscal pressures on government. Since such broad subsidisation typically benefits the non-poor disproportionately, it could be considered doubly wasteful. Reduction or elimination of such subsidies thus provides multiple benefits: resource conservation, environmental improvement, reduced government deficits, and reduction of market distortions in the economy. Targetted compensation schemes are frequently used when subsidies are reduced to alleviate hardship of negatively affected parties, especially low income households.

Taxes on products, pollutants, and emissions

Charges are levied on products directly or based on the units of harmful substances contained in them. Taxes could also be related to the measurement of pollutant discharges. Product taxes are usually effective when the objective is to reduce the usage of the product. Relocating activities to places outside the regulated area remains probably the most frequent evasive action taken, leading to economic losses and undermining environmental improvement.

There are certain key principles that EFR design needs to follow. The practical aspects for setting the level of taxes should help establish the principle that industries should pay for pollution and invest in clean technology. Revenues from EFR allocated to environmental purposes must be managed in line with principles of sound public expenditures management, fiscal discipline, efficient allocation of public funds, operational efficiency, accountability, and

transparency. Revenues generated through EFR are also often used to reduce other distortionary/undesirable taxes in the economy and/or compensate negatively affected parties in order to gain public support. Environmental fiscal reform instruments should be developed within the context of existing regulatory and institutional frameworks and their scope should match the institutional capacity to implement and monitor.

International experience with environmental fiscal reform

European Union (EU) countries have the longest experience with EFR, with the Nordic countries among the first to implement EFR in the early 1990s followed by countries such as Germany, UK, France, and Italy in the late 1990s (OECD, 2001). Today the Organization for Economic Cooperation and Development (OECD) lists 375 such taxes in OECD member countries plus some 250 other environmentally related charges and fees with revenue from environmentally related taxes averaging roughly 2% of GDP and 6% of total tax revenue in countries involved (OECD, 2010). In many countries, revenues gained from environmentally related taxes have been used to decrease the overall tax burden to achieve (at least partial) revenue-neutrality. Most eco-taxes are directed towards energy, transport, and carbon or CO₂ with the revenues coming from such taxes dwarfing those from other sectors such as water, waste, pollutant discharges, etc. (OECD, 2010). Environmental fiscal reform measures in different sectors in selected OECD countries along with, in some cases, their impacts are summarized below:

Carbon or CO₂ taxes

Denmark, Finland, Italy, the Netherlands, Norway, and Sweden have levies named "carbon taxes" or "CO₂ taxes" that, at least partially, reflect the varying carbon content of different fuels (OECD, 2006). However, various exemptions and rebates have been introduced due to concerns about sectoral competitiveness including for electricity generation, aviation fuel, and production of cement. The Danish Environmental Protection Agency estimates that CO₂ emissions were reduced by 24% between 1990 and 2001 due to the carbon tax compared to business-as-usual (Cottrell, Mander, Schmidt, & Schlegelmilch, 2010). In Norway, the impact of carbon taxes has been estimated to be a 2% CO₂ emission reduction between 1990 and 1999 (Bruvoll & Larsen, 2004). Studies by the Federal Environment Agency in Germany show that CO₂ emissions have been reduced 2–5% by 2005 due to ecological tax reform (UBA, 2004). The Swedish carbon tax is estimated to have reduced CO₂ emissions by 9% between 1990 and 2007 (Cottrell et al., 2010). The UK Climate Change Levy taxes energy delivered, except that derived from renewable, but exempts the household and transportation sectors. According to an analysis by Cambridge Econometrics (2005), the levy led to a 2% reduction in CO₂ emissions in the UK by 2002.

Electricity taxes

About half of OECD member countries apply taxes on electricity consumption per kWh rather than on the fuels

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