

# Foreword

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Climate change is a consequence of burning fossil fuel without paying the ecological costs of carbon emissions. The root cause of climate change is our current economic system, which depends on cheap fossil fuel. Therefore, the ultimate solution to climate change has to be a fundamental economic system change from an economy that takes ecological services such as a stable climate as free goods to an economy that recognizes the right price for ecological services and resources we are consuming.

Economic system change is easy to say but politically difficult to implement. Policy makers, businesses and consumers fear that paying the ecological price of fossil fuel will increase the tax burden on the economy, which could damage and slow down economic growth. This is why climate negotiations for burden sharing are so difficult.

Here lies the historical opportunity for experts working on environmental taxation. Ecological tax reform (ETR) holds the hope of internalizing ecological prices of ecological services and resources into the market price without increasing the tax burden on the entire economy. The double dividend hypothesis of ETR even holds the hope of stimulating economic growth while greening the economy.

Green economy, the main theme of the Rio+20 Summit in 2012, is an economy where investment in ecological services and resources could generate profit, employment and growth rather than economic loss. However, green economy requires an economic system change of shifting from an economy based on market prices that ignore ecological costs of climate change towards an economy that internalizes ecological prices into its price structure.

Though ETR has great potential, it has been tested only among a few European countries. The idea that tax policy can be used for 'greening the economy' for a 'double dividend' is little understood outside of Europe.

Environmental tax experts share a historical mission of providing concrete fiscal policy options that internalize ecological prices into the market price without damaging the economy and possibly stimulating the economy. There is a knowledge gap as to whether ecological fiscal policy can be applied in developing countries and what are the conditions that would make it function properly. It is an important task for ecological tax policy experts to identify fiscal policy options that can create the

conditions for a double dividend from ETR that holds the key to creating a synergy between economic growth, poverty reduction and environmental sustainability.

Traditional development patterns have followed the 'Grow first, Clean up later' approach. Many developing countries are following this pattern. Now is the time for change. Developing countries should be able to leapfrog to a green economy without repeating the same past mistakes of developed countries.

Green economy or green growth that promotes a win-win synergy between the economy and ecological sustainability will not happen automatically in the marketplace. It has to be made to happen. Governments have to jump start the green growth process by closing two gaps, namely the price gap between market price and ecological price and the time gap between short-term cost and long-term benefit.

Policy makers will not risk their political leadership unless they are convinced of the practicality and feasibility of fiscal policy options that promote internalizing ecological costs into the market price while not jeopardizing economic growth and employment. I congratulate the authors of *Critical Issues in Environmental Taxation* as they clarify and identify policy options necessary to stimulate the synergy between economic growth and ecological sustainability. This volume will encourage policy makers to venture out and jump start the process of greening the economy.

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