

Integrating Eco-Taxes in the GST Framework: Comprehensive Environmental Fiscal Reforms

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Abstract - This study looks into the prospective role of environmental fiscal reforms in addressing environmental and resource use efficiency issues for a selected set of issues in India, considerate the current managerial, institutional, and legal frameworks that resolve the applicability of such instruments, analysing the trade-offs involved, and potential impacts across various stakeholders. EFR (environmental fiscal reform) refers to the use of fiscal instruments for the management of natural resources and environment. There are different relevant instruments under the realm of EFR and constitute the intersection of environmental and budgetary policies. These include taxes on resource exploitation, subsidies for and taxes on products and inputs, taxation of environmentally harmful emissions and user fees/charges for disposal.

The flow of pollution can be mitigated to a certain extent by policy intervention. There are two groups of policy instruments to stem the flow of pollution: regulatory and economic. This paper focus on economic instruments is fiscal instruments encompassing both taxation and subsidies. In India, consideration of the fiscal instruments is particularly important at the present juncture as we are in the process of bringing in comprehensive reforms in the system of taxation of Goods and Services.

Index Terms - Eco tax, environmental fiscal reforms, Goods and Service tax, taxations and green tax.

INTRODUCTION

With the increasing pressure on the natural resources and rising emissions of damaging pollutants across the world, national governments, international agencies, communities and businesses are being increasingly called upon to address environmental problems along with the developmental concerns. However, heavy dependence on environmental and natural resources for economic development, continual budget constraints and weak institutional capacity often make it difficult to achieve the necessary levels of

environmental protection without hampering the development pathways. The complex and cross-sectoral nature of the environmental issues creates the need for variety of instruments and policy measures for the protection of the environment and management of natural resources. Over the last few decades, economic instruments have been used to complement legislation-based environmental policy. Though the use of economic instruments has been greater in the developed world, but recent years have seen the developing countries also making increasing use of such instruments. Fiscal instruments are important economic instruments and, in their capacity, to prioritize and channelize government allocations and influence decisions of economic agents, are being recognized as an integral part of environmental policy. Environmental policy can play an important role in determining the fiscal policy that should be used in the country. The term 'Environmental Fiscal Reform' (EFR), was initially used since the end of the 1990s in industrialized countries and became recognized in the global political scene in 2005 following the reports published by the OECD Development Assistance Committee (OECD DAC) and the World Bank. The underlying concept, in the context of developing countries, is considered by the EC, UNEP, UNDP and countries, like the UK, Denmark, Sweden, Germany as a policy helping to achieve the Millennium Development Goals (MDGs) as developing countries are faced with huge challenges and are requiring to raise domestic revenues to invest in education, healthcare, schools, infrastructure and the environment. Therefore, it is not surprising that EFR is envisaged as an important component of the development policy tool kit.

There are different relevant instruments under the realm of EFR and constitute the intersection of environmental and budgetary policies. These include taxes on resource exploitation, subsidies for and taxes

on products and inputs, taxation of environmentally harmful emissions and user fees/charges for disposal. EFR would also include in its realm pricing of natural resources and select publicly provided services, as the deviation of prices from the marginal cost of supply of the public services may be viewed as the tax or subsidy impacting on the government budget (Sankar,2002). Examples of such deviations are witnessed in several sectors in India.

It should however be recognized that though the revenue raising potential of EFR is significant, but apart from the environmental taxes, the other fiscal instruments for the environment have so far not been very successful in raising significant revenues. Most efficient fiscal instrument being the taxes which presumably can raise a considerable amount of revenue – may prove to be the least politically feasible. For example, in India the middle and upper classes are much opposed to the taxation of transport fuels, on the grounds that such a tax would be regressive and affect the poorer population the most.

SCOPE AND THE TERMS OF REFERENCE FOR THE STUDY

EFR can address key concerns arising out of environment degradation that may threaten economic and health conditions of the poor particularly in developing and least developed countries, improving resource efficiency of key economic activities, including sustainable use of natural resources. As a step towards the larger goal of moving on the path of sustainable development, this research article, 'Environmental Fiscal Reforms: Special Reference to Eco Taxes in GST Era in India' proposes to answer the following questions for a select set of environmental and resource management issues in India:

1. What role can EFR play? What is the potential instruments/reform and their relative merits?
2. Does the required EFR infrastructure exist? Are current administrative, institutional and legal frameworks conducive to the design, monitoring and enforcement of these instruments?

Based on answers to the above questions, the article aims to recommend the fiscal instruments and institutional changes that seem most appropriate for the issues under examination and possible ways to implement the recommendations.

APPROACH AND METHODOLOGY OF THE STUDY

Environmental fiscal reforms (EFR) refer to a range of economic instruments (EIs) of taxation and pricing measure that help in freeing economic resources and at the same time generating revenues and providing incentives for environmentally friendly actions, conservation of and sustainable use of natural resources. The use of these instruments either drive up the cost of environmentally harmful activities or increase the returns from sustainable approaches, thereby creating economic incentives to behave in a more environmentally responsible and sustainable manner. Key reforms include cost recovery and pricing measures to improve access to basic services, taxes on extraction of natural resources, taxes and subsidy reforms to discourage use of environmentally damaging products and at the same time restrain consumption of exhaustible resources.

A common notion of what EFR stands for can be found in two reports published by the World Bank (2005) and the OECD: 'Environmental fiscal reform' (EFR) refers to a range of taxation and pricing measures which can raise fiscal revenues while furthering environmental goals. This includes taxes on natural resource exploitation or on pollution. EFR can directly address environmental problems that threaten the livelihoods and health of the poor. EFR can also free up economic resources or generate revenues that can help to finance access of the poor to water, sanitation and electricity services (OECD, 2005, p.24).

For each of the environmental and resource management issues mentioned above, a literature review and case study review on existing practices for achieving sustainability was done. Examples of environmental fiscal reform measures in India and other countries of the world will be looked at. Specific approach adopted for the issues studied in the article are as follows:

Approach 1: Review existing mechanism of Environmental Fiscal Reforms Relevancy for India and how mechanisms for EFR be designed for India.

Approach 2: To study of the International Experience on Environmental Tax Reforms a comparative analysis with India.

Approach 3: To study the Environmental Management: Constitutional Provisions and pollution costs in the context of India.

Approach 4: To study the designing Eco taxes and Goods and service taxes in India.

ANALYSIS AND INTERPRETATION

EFR as a policy package has been applied both in developed and developing countries. However, the exact design of the EFR must reflect the different general conditions (economic, political, institutional, social, legal, etc.) as well as the policy objectives which the countries want to realize which implies that there is no 'one fits all' approach. The developing countries may associate the fiscal benefit, i.e. domestic resource mobilization with social and 'pro-poor' benefits, while the developed countries may be interested in their objective of not increasing the overall tax burden in case of an EFR and their adherence to the principle of revenue neutrality. However, the environmental benefits associated with EFR are undoubtedly similar as the EFR should provide incentives for curbing environmental pollution as well as incentives for sustainable natural resource management.

EFR in the context of developed countries: the basic thought of implementing EFR in the developed country context is aimed at reforming the national fiscal system by shifting the burden of taxes from conventional taxes to environmentally damaging activities, such as resource use or pollution. The basic reason behind this is that the burden of taxes should fall more on environmental pollution which in economic terms is defined as bads, rather than desirable outcomes/goods (labour) and in the process provide a price signal to consumers and producers with the aim of influencing and changing their behaviour. This policy measure should therefore permit the achievement of environmental benefits with economic/employment benefits simultaneously. Furthermore, this policy measure guarantees that the total tax burden is distributed fairer and better from an environmental and indeed also sustainable development perspective while keeping the total tax burden constant. Select application of EFR in developed countries is presented below.

EFR to reduce emission from transport/automotive sector: One of the reasons for such interventions arose for distortion arising from earlier tax measures. Tax rate variations between substitute goods have the ability to influence significantly the market structure.

For example, earlier in many OECD countries, diesel was taxed at a lower rate than petrol despite the fact that diesel vehicles were more polluting compared to petrol vehicles. This distorted tax differential resulted in a large number of diesel vehicles on the road. It was estimated that the total consumption of diesel fuel for road transport grew from 15 per cent on total road fuel consumption in 1970 to 32 per cent in 1992. In addition, special tax incentives like accelerated depreciation, allowed for resources, etc. were provided to certain polluting industries that was also harmful to the environment. The issue has been taken care of by many OECD countries like Austria, Denmark, Finland, Norway, UK, among others, later have developed environmentally motivated differentiation of diesel taxes. This type of differentiation has led to a gradual reduction in the most polluting automotive fuels.

Many countries like Austria, Denmark and Germany, have introduced differentiated vehicle taxation adjusted to the specific emission characteristics of the vehicles (OECD, 2001). These emission charges are levied on the discharge of pollutants into air, water or on the soil and the generation of noise. However, it is important to know that emission charges are not user charges. While user charges are payments by generators for the costs of services for managing wastes by agencies, emission charges are a straightforward way of putting prices on the use of the environment. User charges also have a revenue-raising objective and only those who are connected to the public services are charged. Both emission and user charges are widely used in OECD countries primarily in the fields of water and waste management.

In Austria, a registration tax, expressed in per cent of the net purchase price – applies to passenger vehicles, and the percentage rate depends on the fuel efficiency of the vehicles. For petrol driven and diesel driven vehicle using the same amount of fuel per 100 km, the tax rate is higher for the diesel driven one. The United States levies tax in the range of US\$ 1000 to US\$ 7700 on the sale of energy in-efficient motor vehicles based on the number of miles the vehicle can travel per unit of the fuels used.

Such examples are particularly important in the Indian context due to the fact that diesel prices in India are regulated. In other words, oil marketing companies are not allowed to charge the market determined prices for diesel from consumers. The main objective is keep to

avoid sudden spike inflation since most of the essential commodities are transported by heavy vehicles that run on diesel. However, the low price of diesel has resulted in a significant increase in demand for diesel run passenger vehicles, despite the fact that it is relatively more polluting. In recent times auto manufacturers have recorded a 150 percent rise in demand for diesel run cars while demand for cleaner CNG cars has remained flat.

Green tax reforms in EU : Since the early 1990s, several countries particularly in the European Union have brought about comprehensive tax reforms where environment related taxes have offset reductions in existing tax rates. An important aspect behind such tax shifting programs implemented in several EU member states is the principle of 'revenue neutrality', meaning that the increase in the tax revenues generated by environmental taxes is offset by the reduction of other taxes or charges. Finland was the first country to incorporate taxes that was targeted to CO₂ emissions. The revenues raised through the process have been used to partly offset revenue losses stemming from cuts made in taxes on labour. Norway introduced a CO₂ tax on mineral oils and again a part of the revenue of these taxes has enabled a reduction in income taxes and increased support for energy saving investments and renewable energy sources. Following these countries that started the green tax in the early 1990s, other European countries joined the suit towards the later part of the 1990s. Austria introduced a energy tax on gas and electricity in 1996. Italy adopted a number of environmental taxes including the carbon tax on mineral fuels. France introduced a general tax on polluting activities in the 1999 under a finance act, by combining the five former taxes and other mandatory levies earmarked to the environment and energy-mastering agency. The major aim is to improve the incentive to protect environment, by applying the principle of 'pay as you pollute'. The new tax referred initially to the dumping of garbage, the storage and elimination of special industrial waste, oil consumption, atmospheric industrial pollution and the noise generated by air traffic. Pursuing an objective both environmental and social, the legislator later decided to extend the scope of the new tax to washing and softening products, natural mineral grains, anti-parasite products for agricultural use, and facilities. Government of India introduced a nationwide carbon

tax of INR 50 (€ 0.74) per metric ton of coal both produced and imported into India. This is a step towards helping India meets its voluntary target to reduce the amount of carbon dioxide released per unit of gross domestic product. But India needs to explore more options of implementing similar taxes on other resources like mineral oils and gas of mass consumption, as observed in other develop countries, wherein the money collected can be used to provide necessary incentives/subsidies/tax exemptions to promote alternate forms of energy like solar or wind. Taxes on treatment of waste: Many countries have introduced taxes related to the final treatment of waste or on packaging and certain specific products that can cause special waste related problems. Austria has different tax rates for landfill depending on the efficiency of the facility like whether there exists methane recovery or not. Demark has set different rates of taxation between incineration and land filling. Land fill waste is charged more than incinerated waste and differences in taxation exist between incineration facilities. Finland exempts soil and stone, fly ash and desulphurisation waste from power plants, and waste resulting from industrial production which is deposited on private landfill sites run by the plants. It exempts biological waste and sewage sludge which are delivered to landfill for composting. United Kingdom offers exemption for inert waste used in restoration of landfill sites. There are also further tax credits in the landfill tax to registered site operators who make contributions to approved environmental bodies. It also exempts waste from dredging of harbours and inland waterways, waste from reclamation of contaminated land from the landfill tax. Solid waste treatment and disposal face huge challenges in India and one of the major factors that inhibits scientific disposal is absence of adequate financial resources with the urban bodies like the municipal corporations or development authorities. It is estimated that urban India produces about 42 million ton of municipal solid waste annually and 0.01 million metric ton per day (TPD) and most of these wastes are not treated properly resulting in significant environmental degradation including ground water contamination in disposed sites Hence it is imperative for the urban local bodies to devise appropriate taxes or charges that will help in raising financial resources which can be used in scientific treatment and disposal of wastes as observed in other countries.

EFR in the context of developing countries: Although at the broad level concept of an EFR is similar in developed and developing countries however, their designing may differ. One of the main differences between the two approaches is that for the developed countries the primary focus is on keeping the total tax burden constant. In other words, they are directed towards tax shifting program. On the other hand, in developing countries the primary objective is towards raising revenue potential of environmental taxes as a means of mobilising domestic resources. One of the key challenges faced in developing countries for any EFR probably is the removal of subsidies, in particular in the field of energy and fertilisers subsidy and at the same time introducing tariff schemes for provision of basic services like water supply and sanitation. But despite such challenges, many developing countries have been successful in deploying environmental fiscal policies, some of which are summarised below. Although India has achieved rapid economic growth

in recent times, the same has been achieved by depletion of natural resources and deterioration in environmental quality. Unless acted upon immediately, there are little chances of saving the resources for the coming generations. From the above sections, it is evident that EFR can play an important role not only in raising revenue to resource crunch various government departments particularly at local levels for providing better and efficient environmental services and thus improving environment quality, but also inculcating a behaviour that is resource and environment friendly among the Indian population. The nature of environmental and resource challenge in India is not very different from other developing countries. Hence understanding some of the successful applications of EFR in those countries and benefits from such interventions can be a good lesson for India. Table 1 presents sector specific application of EFR in different countries and the potential benefit achieved.

TABLE 1: EFR INSTRUMENTS IN SELECT DEVELOPING COUNTRIES:

TAX BASE		TYPE OF TAX AND REVENUE	LOCATION	AIM OF TAX	ENVIRONMENTAL IMPACT
TRANSPORT	Petrol	7-30 per cent of total revenues	Many countries	Revenue	Petrol being one of the key fuels used primarily in transport sector, relative increase in the price of petrol encourages greater fuel efficiency and energy conversion ratios; and also reduces air pollution emissions .
	Road Pricing	Charge for peak hour use	Singapore	Attempt to reduce congestion	Reduced traffic by 73 per cent in restricted zone in peak hours. Car-pooling increased, 13 per cent switched to public transport
WATER	Water Pollution	Charges on effluent discharge and water use. \$160 000 collected from potential of \$90 million	Colombia	Cost recovery to cover operation and maintenance costs of monitoring systems	Low enforcement
	Organic pollution	Charges on organic pollution discharge	Colombia	Reduction in level of degradation in rivers	Reported organic discharges fell by 18 per cent in the first year
WASTE	Solid Waste	Law on Solid Waste Law that obliged local governments to introduce a waste charge system	Maracco		Induce a change in the behavior of economic agents and generate income and raise revenues for environmental investments
	Sewage disposal charges	Sewage tariff based on organic matter since 1983	Brazil		Led to increased control through improved housekeeping, raw material substitution and conservation
	Landfill	Waste volume and tipping fees	Bolivia & Venezuela		Implementation difficulties restricted environmental benefit. Areas lacked institutional capacity for waste monitoring. No mechanism to prevent illegal dumping
INDUSTRIAL POLLUTION	Industrial pollution	Levy charge on pollution exceeding pollution standard for metallurgy, chemicals, light industry, textiles, power, and coal	China	Levies on industry to promote environmental management	Notable environmental impact. But rates felt to be too low in comparison will costs of pollution control

	Environment al Investment	Credit and incentives environmental investments	tax for	Latin America and the Caribbean	Encourage environmental investment	Subsidies for abatement have had a limited impact as environmental enforcement was ineffective in increasing industry demand
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Source: Markandya, Harou, Bellw

India should work towards a differential tax system where the polluting goods and services are taxed differentially at higher rate. India should also develop capacity in environment industries where there is potential of considerable growth of demand rather than concentrating on polluting industries where there is already an excess global capacity.

With growing challenges posed by environment and need for achieving sustainable development, there is an increase in application/use of market-based instruments both in developed and developing countries. Use of environmental taxes has grown across the world as an increasing number of countries seek to reform their fiscal and environmental policies by making the two mutually reinforcing. Taxes send out signals that can have a significant impact on the behaviour of economic agents. From the fiscal perspective, some environmental taxes are capable of generating significant amounts of revenue. The revenue thus collected can be a means to generate domestic funds for making long term financially sustainable environmental investments. However, application related challenges are many. As identified above, one of the key challenges from the developing country perspective is the reform of the existing subsidy schemes. There is no single and straightforward approach of reforming subsidies. Reforming such subsidies also needs to be seen as an important step towards freeing up revenues for financing other policy goals, such as meeting our targets under the Millennium Development Goals policy. What is even more significant is the fact that a large proportion of these subsidies have not even reached the poorer and vulnerable sections of society. The evidence suggests that with careful design, EFR can increase the efficiency of the economy. However, policy makers are facing a real challenge in combining aspects of economic efficiency and political and social acceptability versus environmental effectiveness. Hence the need for a balanced approach remains the key. EFR can be a powerful tool for mobilising revenues, while simultaneously promoting environmental objectives and supporting poverty eradication measures.

ENVIRONMENTAL FISCAL REFORM IN INDIA

The last few decades have seen increasing use of economic instruments for complementing the use of legislation-based environmental policy in developed countries; developing countries have also recently started to make increasing use of such instruments. This chapter discusses the fiscal framework in India and the potential for environmental fiscal reform in the country. The rising economic prosperity in India has seen the emergence of challenges of rising urban centres, changing consumption and production patterns, lifestyles and rising energy demand. This has resulted in widespread environmental damage and degradation. Economic costs of degradation have been estimated to be in the range of 3.5 per cent and 7.5 per cent of the country's GDP. The key environmental challenges in India have become sharper in the past two decades. The 2009 State of the Environment Report by the Ministry of Environment and Forests (MOEF) has highlighted five key challenges faced by India, which are climate change, food security, water security, energy security, and managing urbanization. Land degradation occurring due to the natural and human induced causes, like wind erosion and water logging, is one of the priority concerns in India. The varying degrees and types of degradation stem mainly from unsustainable use and inappropriate land management practices. The stress on urban infrastructure is very eminent as it has resulted in a greater number of people that need to be served, deteriorating service quality, inadequate revenues to cover costs, widening rich-poor divides and the need for capacity augmentation-both in terms of skills and physical infrastructure. Poverty, traffic congestion, bad air quality, high noise levels, lesser green areas and open spaces, water scarcity and many others which are putting our cities under the threat of sustainability. The National Environment Policy-2006 has attempted to mainstream environmental concerns in all developmental activities. The Government of India, through its various policies, has been factoring ecological concerns into the development process so that economic development

can be achieved without permanently damaging the environment. The challenges ahead are, nevertheless, large. Meeting rising energy needs in an energy-poor country with still limited access is a huge challenge, along with accelerated urbanization and manufacturing to create more jobs.

Fiscal federal framework in India: Fiscal system of a country plays an important role in studying the appropriateness of fiscal policy options available to that country. In a federal context like India, with different tiers of the government—Centre, state and local bodies—responsible for environmental management, designing appropriate EFR strategies further require consideration of jurisdiction of both the environmental subject and the instrument. It is important to understand the terms of the decision-making systems for introduction and change of taxes and expenditure allocations. The Seventh Schedule of the Constitution of India prescribes the division of legislative powers (including taxation powers) between the Union and State Governments through the Union, State and Concurrent lists. Many subjects that are limited to state's own jurisdictions such as water, land, agriculture, public health and sanitation, and some industries come under the category of state subjects. The Union list includes subjects that serve at a national level like the railways, highways, maritime navigation, ports, airways, some industries, oil fields and major minerals, fishing beyond territorial waters, etc. Subjects like electricity and forests are in the Concurrent list where both the Union and a State Legislature can make laws but in case of a conflict and no scope for harmonious reading of provisions, Union enjoys a primacy over States in that its legislation in the Union and the Concurrent List prevails over State legislations. Only the parliament has the residuary power to make laws on matters that are not included in any of the three lists and environment is one such matter. Since the states have ownership of public land and natural resources coupled with legislative powers conferred by Article 246 of the Indian Constitution, read with List I and II of Schedule VII of the Constitution, there is realm of powers enjoyed by and distributed amongst centre and state vis-a vis natural resources and other environmental subjects.

Indian municipal bodies can levy and collect only those taxes that are in the State List in the Constitution and are authorized by the States. As result the taxing powers assigned are non-uniform across states. While

the taxation powers are exclusive, the expenditure powers are not so, which explains why the central government has many schemes in areas covered by state subjects including environmental matters. The 73rd and 74th Amendments of the Constitution of India that were incorporated into the Constitution of India in 1992 provided a constitutional sanctity to local governance in India. State governments have enacted enabling legislation providing for local self-governments both in rural and urban areas, including empowering them to levy duties and taxes in some areas. The fiscal authority of these institutions is defined through separate lists in the Constitution (eleventh and twelfth schedules). These lists describe the subjects, the schemes related to which, have been entrusted to the local self-governments. This last tier of governance in India, called the Panchayat Raj Institutions, is subject to specific fiscal powers being conferred by the state legislatures. However, studies¹⁵ have shown that the implementation of these amendments has been weak, especially with respect to finances and functionaries. The mobilization of own revenue, which strengthens the link between revenue and expenditure decisions, necessary to improve the efficiency and accountability in the provision of public services is particularly dismal. The revenue instruments assigned to local bodies are inadequate and not commensurate with the functions expected to be performed by them. To tackle these issues, reforms have been recommended by the Finance Commissions and other experts to improve the financial state of local bodies and encouraging rationalization of user charges for basic services, especially water supply, sanitation, and solid waste management.

INTEGRATING ECO- TAXES IN THE GST FRAMEWORK

The issue is as to how to handle environmental tax reform in the framework of Goods and Service Tax (GST). As already discussed, many countries that have VAT have also initiated environmental tax reform. The GST consists of Central and state GST components, there are also issues concerning whether the proposed GST will have adverse environmental implications and what can be done to bring environmental considerations in the GST framework. We generate future pollution load by: (a) estimating growth of output at 14 sector disaggregation(GDP at

factor cost) up to 2029-30 (b) converting output to the gross output using technology assumptions from the 2006-07 input-output table; and (c) using pollution load matrix giving pollution per unit of gross output. Pollution levels into the future can then be analysed and modified either by changing the growth and /or structure of output, or by changing the input-use coefficients or by changing the pollution load coefficients (more environment friendly technology). In the base growth scenario, sectoral growth is projected as per potential growth using the model discussed in Sivastava and Kavi Kumar(2011). This growth rates can be considered as potential growth since they assume a supporting policy scenario and are based on supply side considerations. Pollution load, both of local and global pollutants are generated using the projected output at 1999-2000 price, generating gross output from these, and then applying the pollution coefficients. The estimated pollution load for selected years is given.

CONCLUSION

It is possible to demonstrate that if environmental taxes are integrated in the GST, almost all of these concerns can be effectively addressed. The environmental taxes can be introduced in the form of non-relatable excises or cases on polluting goods and services with respect to these non-rebate able exercises, the state can be given autonomy to select the goods from within a list approved by the Goods and Service Tax Council. Second, the revenue from environmental taxes can be used to bring the overall GST rate down to say 14 percent, divided between the center and State, at 7 percent each, Third the producing States will get a long-term source of addition revenue enabling them to cope with the problems of localized pollution. Fourth, the 7 percent rate is low enough obviating the need to have dual rates for goods. We can then have a single rate for goods and service. Fifth we will then have an environmentally friendly taxation regime. Sixth, the provision of non-relatable excise will allow petroleum products also to be brought under GST.

REFERENCES

[1] Srivastava, D.K. and K.S Kavi Kumar(2011), Impact of Fiscal Instruments in Environmental

Management through a Simulation Model: Case Study of India,

- [2] <http://theccc.org.uk/reports/building-a-low-carbon-economy/supporting-research>).
- [3] Greenpeace International (2011) Bad Influence: How McKinsey-inspired Plans Lead to Rainforest Destruction, April 2011,
- [4] Baumol, William J., & Wallace E. Oates (1971) The Use of Standards and Prices for Protection of the Environment, 73 Swedish Journal of Economics 42, 42–51.
- [5] Karen Ellis, Bryn Baker and Alberto Lemma (2009) Policies for Low Carbon Growth, London: Overseas Development Institute, 27 November 2009.