DEVELOPMENT IMPLICATIONS OF ENVIRONMENTAL TAXATION IN NIGERIA.

BY

OLATUNJI, Toyin Emmanuel PhD, ACA, MNIM
Department of Management and Accounting, Faculty of Management Sciences,
Ladoke Akintola University of Technology, Ogbomoso. Nigeria.
and

OLAOYE, Clement Olatunji PhD, ACA
Department of Accounting, Faculty of Management Sciences,
Ekiti State University, Ado Ekiti, Ekiti State, Nigeria.

Abstract

The study investigated the developmental implications of environmental taxation in Nigeria. Specifically the study examined the relationship between environmental taxation and environmental quality in the country, its influence on cost effectiveness of Nigeria firms and its contribution to the improvement of standard of living of the citizenry. Using primary data sourced from a sample of 100 respondents with the use of questionnaire, and employing series of descriptive and inferential statistical analyses. The study found out that environmental taxation is coterminous with improved environmental quality, that environmental taxation has no significant influence on cost effectiveness of Nigerian firms and that environmental taxation has not culminated into improved standard of living in the country. Thus the study concluded that government should ensure that the structure and administration of environmental taxation in Nigeria should be void of loopholes that can permit tax evasion and avoidance and that the proceeds from environmental taxes should be channelled towards remediation of environmental degradation and infrastructural development in the country.

Keywords: Environmental taxation, development, cost effectiveness, environmental quality, remediation, standard of living.

Introduction

Background: Nigeria is committed to a national policy that ensures sustainable development based on proper management of the environment in order to meet the needs of the present and future generations. This demands positive and realistic planning that balances human needs against the potentials that the environment has for meeting them. (Udeh, 2010). Stig (2007) posits that the global community is facing immense challenges in dealing with environmental issues. Problems of pollution and ecological degradation are not confined to national states Severe as they may be regionally and locally they impact on living conditions and on the environment globally. Taxes are tools for regulating economic activities and have been found to be of particular use to reduce environmentally harmful emissions to air and water and to reduce the amount of waste generated. Taxation had of course an environmental impact even before it was established as an instrument of environmental regulation.

In the early seventies, environmental awareness grew and environmental protection issues began to occupy centre stage of policy. The ideas of taxing polluting activities dated back to Pigou (1920), and environmental taxes are seen as an efficient instrument to protect the environment (Ronnie 2003). Environmental taxes are resource taxes concerned with the impact of green taxes on the world producer prices of exhaustible resource, such as gas and oil products as this affect the time path of extraction. Ronnie (2003), observed that the enthusiasm for environmental taxes gained momentum with the double dividend hypothesis. Tax revenue from environment taxes can be used to cut other taxes- this can reap a second dividend as it reduces the distortion due to other taxes. Additional impetus for environmental tax reform has come from the recognition of the limitations of environmental policies, pursued solely through conventional regulatory instruments.

According to Stig (2007), when tax is imposed on a polluting or environmentally harmful substance or activity, it introduces an economic cost that the polluter will take into account when making the decision whether or not to carry on the activity or how it is done or its extent. The effectiveness of environmental taxation to achieve environmental control has been controversial in literature, hence the question: how can environmental tax reform be undertaken without reducing growth and social welfare? This question is central to public debate not only in countries where environmental tax reform has been introduced but also in countries where such reform is still under consideration (Heine, et al, 2012). These observations therefore pose three important research questions which will form the main focus of this paper:

i. Is there any relationship between environmental taxation and environmental quality in Nigeria?

ii. What is the influence of environmental taxation on cost effectiveness of Nigerian firms?

iii. What is the contribution of environmental taxation to improvement of standard of living in Nigeria?

Objectives: The broad objective of the study is to investigate the development implications of environmental tax in Nigeria. The specific objectives of the study are, to:

i. examine the relationship between environmental taxation and environment quality in Nigeria.

ii. assess the effects of environmental taxation on cost effectiveness of Nigerian firms.

iii. identify the contributions of environmental taxation to improvement of standard of living in Nigeria.

Hypotheses of the Study: The hypotheses for this study are stated in null form:

i. There is no relationship between environmental taxation and environmental quality in Nigeria.

ii. Environmental taxation has no effects on cost effectiveness of Nigerian firms

iii. Environmental taxation does not contribute to improvement of standard of living in Nigeria.

Review of Literature

Pigouvian Tax Theory

Pigou (1920), argued that industrialists seek their own marginal private interest which often diverges from the marginal social interest leading to marginal social cost. The industrialist has no incentive to internalize this cost as the individuals receiving the marginal social benefit have no incentive to pay for that service, causing incidental uncharged disservices and incidental uncharged services, respectively. The divergence between marginal private interest and marginal social interest results in two outcomes- one, the party receiving social benefit and the one creating social harm do not pay for it; two, when the marginal social cost exceeds private marginal benefit, the cost-creator over-produces the product. Non-pecuniary externalities tend to overestimate the social value and so are over-produced. Curtailing over-production requires a tax on the offending producer. If the government can accurately gauge the social cost, the tax could equalize the marginal private cost and the marginal social cost. In more specific terms, the producer would have to pay for the non-pecuniary externality that it created. This would effectively reduce the quantity of the product produced, moving the economy back to a healthy equilibrium.

Distortionary Tax Theory

Bovenberg and Mooij (1998), argued that there is a first-best and a second-best case scenarios. In the first-best case, the government does not need to get revenue from distortionary taxes such as the income tax, as the Pigovian tax can create the long-run social optimum. In the real world, second-best case, the status quo includes an income tax that distorts the labour supply. Bovenberg and Mooij established that households consume a dirty good (D) and a clean good (C). If the government taxes D, it can use the earned revenue to lower the labour income tax. At the same time, the tax levied on the firm will increase the price of D. The lowered income tax and the higher consumer prices even each other out, stabilizing the real net wage. But because C's price has not changed and it can substitute for D, consumers will buy C instead of D. Suddenly the government's environmental tax base has eroded D and its revenue with it. The government then cannot afford to keep the labour income tax down.

Bovenberg and Mooij posit that the increase in the price of goods will outweigh the slight decrease in the income tax. Labour and leisure become more interchangeable the lower the real net wage (or after-tax wage) falls. With this decrease in the real net wage, more people leave the job market. Ultimately, labour bears the cost of all public goods.

Goulder, Parry and Burtraw (1997) agree that that the net social welfare after the implementation of a tax hinges on the pre-existing tax rate. Fullerton (1997) agreed with this analysis but added that lowering the income tax and taxing the dirty good equates with raising the labour tax and subsidizing the clean product. These two polices create the same effects (Fullerton,1998). Fullerton and Metcalf (2002) explained this theory more thoroughly. They began by redefining the terms. The gross wage reflects the pre-tax wage a labourer receives.

The simplest form of the net wage is the pre-tax wage minus the income tax. In reality, however, the net wage is the gross wage times one minus the tax rate, all divided by the price of consumption goods. With the status quo income tax, deadweight loss exists. Any addition to the price of consumption goods or an increase in the income tax extends the deadweight loss further. Either of these scenarios lowers the net wage, reducing the supply of labour offered. Supply of labour decreases because of the interchange of labour/leisure, if someone gets paid very little, he or she may decide it is no longer worth his or her time to continue in that job. Thus, employment decreases. If the Pigovian tax, which increases the price of consumption goods also decreases the income tax, replaces the income tax, Fullerton argues that the net wage is not affected.

Double Dividend Hypothesis

Fullerton and Metcalf (1997) evaluated the double dividend hypothesis. They defined the double-dividend hypothesis as the theory that environmental taxes can improve the environment and increase economic efficiency simultaneously. Either motivation can legitimately support a tax reform. The first dividend intuitively makes sense- decreasing pollutant emissions improves the environment. The improvement in economic efficiency results from a shift away from distorting taxes such as the income tax. Fullerton and Metcalf note that for every ₦1 extracted in taxes, a ₦1.35 burden falls on the economy. In a sense, the private sector must swallow a 35 cent excess burden for no particular reason. The second dividend aims to eliminate some of this excess burden.

Secondly, Fullerton and Metcalf say the previous literature on Pigovian taxes focused too heavily on the revenue dividend and too lightly on the environmental dividend of environmental taxes. His predecessors naively value revenue too much, Fullerton and Metcalf argue, because they fail to recognize that all taxes impose costs on someone. These taxes could outweigh the environmental benefit. Thus, the government must use the Pigovian tax revenue to lower another tax if it wants to minimize the economic damage of a tax.

Fullerton and Metcalf also mention that the effectiveness of any sort of Pigouvian tax depends on whether it supplements or replaces an existing pollution regulation. If the tax replaces a pollution regulation, it will most likely be environmentally neutral, even if it is revenue-positive. If it supplements the regulation, it may or may not be environmentally and revenue-neutral, depending on the effectiveness of the original regulation. The status quo substantially affects the outcome of a proposed tax.

Theory of Internalization of External Costs

Pigou was concerned with welfare maximization and built up a theory of economic efficiency suggesting national dividend, and consequently welfare, would be increased to an optimal level if external environmental costs were fully internalized. The rationale behind this proposal was that a proper allocation of costs between those engaged in economic activities causing pollution, both polluters and pollutees, would allow equalizing social benefits and social costs associated to those activities. Pollution taxes would contribute to reach such a result by forcing equivalence between private costs and social costs per product or activity. This condition would be fulfilled if the costs of marginal uncompensated externalities were imposed via a tax on the agents causing them instead of burdening the society.

A logic symmetric to the one developed for the external costs case should be applied when external benefits occur instead. In such case, the tax should be replaced by a subsidy to the economic agents. Since the Pigouvian model aims at neutralizing the difference between the marginal social net product and the marginal private net product. the tax rate should be set at the amount of the marginal external costs per unit of pollution (Cropper and Oates, 1992; Bovenberg and Goulder, 1996; Fullerton and Metcalf, 1998; EEA, 2000). The Pigouvian theory focus on the internalization of external costs. Therefore, according to such theory, the pollution tax rate should be calculated according to external costs rather than precise amounts of pollution abatement.

This theory aims at welfare maximization rather than any specific environmental goal, with environmental improvement being a consequence of such general efficiency gains attained via full cost internalization. Expected improvements in resource allocation shall occur as result of behavioural changes induced in the economic agents by the re-allocation of external costs. Cost internalization is a first means which starts another means: behavioural change, in order to accomplish a specific objective, i.e. welfare maximization (COM, 2005). Environmental results are secondary to the economic goal of increasing economic welfare by correcting market prices via cost allocation (Milne, 2003).

Effects of the Pigouvian tax are twofold: an abatement effect and an output effect. The first arises because of incentives to reduce emissions as long as marginal abatement costs are lower than the unit tax rate. The output effect is a result of increased production costs due to abatement costs for reduced emissions and tax costs for remaining emissions. Thus, following the adoption of a Pigouvian tax on emissions, two kinds of effects on resource allocation are expected: a direct improvement of the environment through reduced emissions and an indirect improvement through a structural shift in production towards less environmentally damaging goods. The tax is the endogenous variable in a Pigouvian model. Regulatory intervention is explained by the absence of pollution control in the pre-tax moment and its occurrence in the post-tax moment. Polluters develop their decision-making process taking the amount of tax levied as a reference. A behavioural response is expected in a context where it is cheaper for the (rational, cost-minimising – Posner, 1992) economic agent to control polluting emissions than to pay for the full cost associated to such emissions (i.e. private costs plus external costs internalized by the Pigouvian tax). The Pigouvian approach is mentioned in some reference reports (e.g. EEA, 2000), but scarcely followed in institutional practices.

Concept of Environmental Taxation

Environmental taxes which are also known as Green taxes or Pollution taxes are excise taxes on environmental pollutants or on goods whose use produce such pollutants. (Levinson, 2007). Environmental taxes are defined as those which meet all of the following the principles;

1. The tax is explicitly linked to the governments environmental objective;
2. The primary objective of the tax is to encourage environmentally positive behaviour changes;
3. The tax is structured in relation to environmental objectives for example; The more polluting the behaviour, the greater the tax levied.

Martin(2012), explained that Environmental taxes have the potential to drive environment and sustainability right to the heart of business decision making by gaining the attention of the finance director and catalysing improved environmental performance. Environmental taxes include the climate change levy, the aggregate levy, landfill tax, emission trading scheme, the carbon price support, and it is against this that the government measures her commitment to increase the proportion of environmental tax revenue.

Environmental taxation also has an important role to play in spurring innovation. By increasing tax on pollution and other environmentally damaging activities, government can use the extra funds to provide incentives for innovation such as developing renewable energy (European Environment Agency, Denmark, 2009). Environmental tax is viewed as one of the main mechanisms to deal with environmental problems. Nonetheless, instruments of this type have rarely been implemented and the adoption of new higher environmental taxes has faced resistance in some countries (Sebastian and Maurrico, 2013).

Environmental taxes have had a clear positive impact on the environment to the extent that such taxes have been applied. (OECD, 2009). Introduction of environmental taxes is often related to the concept of double dividend, where substituting environmental taxes for other distorting taxes not only benefits the environment but also reduces efficiency cost of the tax system. (Goulder,1994). The theoretical literature on environmental taxation is mainly focused on pre-existing distorting taxes in the labour and

capital market. (Goulder et al, 1997). In Nigeria business environment, the tax environment has impact on employment, output, income and economic growth rate.

Why Environmental tax?

According to Heine (2012), environmental taxation is a way for governments to influence behaviour by levying taxes against practices or product which harm the environment such as greenhouse gas emitters' gasoline, products that contain toxic chemicals like batteries; industrial practices the use of agricultural pesticides. Environmental taxes are needed to provide incentives to lessen environmental burden and preserve the environment. Revenue of environmental taxes can be used for environmental preservation projects and it cuts other taxes like Personal Income Tax (PITA), Corporation tax and Social insurance premium. (Japan Centre for a Sustainable Environment and Society, JACES, 2010). A major goal of environment taxation is environmental protection i.e. to curb practices that harm the environment. e.g. regions that suffer from air pollution can impose taxes on carbon emissions from coal power plants or gasoline sales.

Environmentally Related Taxes

Environmentally Related Taxes are defined by Organization for Economic Development Countries (OECD), as every payment to government levied on tax bases that have any environmental relevance. Taxes are unrequited in the sense that benefit provided by government to tax payers are not related to the payments. Therefore, this definition taken into account the effects on the relevant price elasticity and also implies that not every Environmentally Related Tax (ERT), was implemented with a specific environment goal but does have a final positive impacts on the environment. The main feature of Environmentally Related Tax is consequently that they incorporated cost of pollution into final prices and thus create incentives for producers and consumers to change their behaviour towards less environment damages. (Sebastian and Maurrico,2013).

Environmental Compliance and Enforcement in Nigeria

Environmental law in Nigeria is that branch of public law, which contains rules and regulations which have as their object or effect of the protection of the environment. During the colonial era, protection of the environment was not a priority in Nigeria and there was accordingly no policy aimed at preserving and protecting it. Matters relating to the environment were dealt with as a tort of nuisance because disputes in environment related laws. (Muhammed, 2012).

Merits and Demerits of using Environmental Taxes

The main aim of an environmental tax is to increase the firm's private marginal cost (PMC) until it equates with Social Marginal Cost (SMC). This will result in a socially efficient level of output.

According to (Government Pre-Budget Report, Nov. 2012), the following are advantages of using environmental tax.

1. They can encourage innovation and the development of new technology
2. Economic instruments such as tax can enable environmental goals to be achieved at the lowest cost and in the most efficient way.
3. The revenue raised by environmental taxes can also be used to reduce the level of other taxes, which can help to reduce distortions in the economy, while raising the efficiency with which resources are used.
4. By internalizing environmental cost into prices, they help to signal the structural economic changes needed to move a more sustainable economy.
5. Dynamic innovation incentive: Environmental taxes provided ongoing incentive for polluters to seek to reduce emissions, even below the current cost effective level, since the tax applies to each unit of residual emissions, creating an incentive to develop new technologies that have marginal cost below the tax rate. (Fullerton, Andrew and Stephen, 2008).

Demerits of Environmental taxes

Although environmental taxes are used by governments around the world to reduce environmental externalities, it contributes to the push factors in the environment.

1. It might be more cost effective for government to switch away from pollution taxation, to direct subsidies to encourage greater innovation in designing cleaner production technologies.
2. The impacts of green taxes depends on what is done with revenue, if they are balanced by reducing other taxes through revenue recycling, research suggest that green taxes could result in an overall economic improvement.
3. Employment and investment consequence: If pollution taxes are raised in one country, producer may shift production to countries with lower taxes. This will not reduce global pollution and may create problems such as structural unemployment and a loss of international competitiveness.
4. Sometimes, the consequences of an environmental tax may be adverse, if those subject to the tax respond in a way that is more damaging to the environment than the tax emissions.

Review of Empirical Studies

Amokaye (2012) considered environmental pollution and challenges of environmental governance in Nigeria with the aim to identify, analyse and articulate the rationale for the failure of environmental government in Nigeria. The study identified various environmental challenges confronting Nigeria and justification for regulation. The study also assess the strategies that will increase the efficiency of environmental regulation and ensure the optimal maximization of social and environmental welfare. Drawing from the economic analyses of legal rules the study identified normative reasons for the poor formulation and implementation of environmental law in Nigeria which resulted in increased pollution and environmental injustice, thus concluding by proffering practical regulatory techniques that can challenge policymakers to improve environment governance in Nigeria.

Oseni (2014), investigated multiple taxation as a bane of business development in Nigeria. The study examined the appropriateness of multiple taxes in developing nation like Nigeria rising content analysis method to highlight challenges that are not backed by law to investors because of the apparent profitability of their businesses and the attempt to increase revenue base is like shifting the goal post after the ball has been put into the net, as it may lead to disinvestment. From the foregoing the study recommended that government should make it illegal to use tax consultants by all tiers of government and mandating police to arrest those involved in collecting taxes outside the ones listed in the taxes and levies Act 1998 will go a long way to put quality to business environment.

Oueslati (2013) investigated the short and long term effects of environmental tax reform using a model of endogenous growth based on human capital accumulation in an attempt to empirically simulate the growth effects of different environmental tax reforms and compute their impact on welfare both in the short run and on the long run. The result of the analyses conducted suggested that the magnitude of the macroeconomic effects of environmental tax reform depends on the type of tax reform. The study thus reviewed that only environmental tax reform that aims to use the revenue from environmental tax to reduce wage tax and increase the proportion of public spending within GDP. Enhance both growth and welfare in the long term while the short run effect is negative.

Soares (2011) focused on the design features of environmental taxes with the aim of presenting a clear guidelines for the design and understanding of environmental taxes as instruments for achieving environmental policy goals, using empirical evidences drawn from institutional practices in Denmark (Waste tax), Portugal (energy tax), and Sweden (energy tax, CO_2 tax, sulphur tax, and the NO_2 charge) in an attempt to ensure environmental effectiveness of environmental taxes. The study thus emphasized that environmental taxes must be raised on specific pollution emissions or a proxy for them and be set at the level required to induce the behavioural change necessary to attain the environmental objectives pursued and must be charged to polluters who control the cause sine qua non of pollution and still did not explore all their opportunities for environmental improvement.

Gareth (2000) examined taxation and economic growth assessing the consensus on the effects of taxation affects the rate of economic growth. The theoretical reviews isolated a number of channels through which taxation can affect growth and showed that these effects may be very substantial, while the empirical tests on the growth effect face unresolved difficulties, pointing very strongly to the conclusion that the tax effect is very weak.

Methodology

In an attempt to trace the development implication of environmental taxation in Nigeria, the study employed both descriptive and inferential techniques. The techniques employed include the likes of percentage and frequency count, correlation analysis, and mean score analysis.

The population of this study is the entire relevant tax authorities in South-West Zone of Nigeria and the data for this research work were collected from a sample of 100 respondents randomly selected. Data used were sourced primarily using a self-administered, closed-ended questionnaire, designed in Likert scale format.

Results and Discussion

Demographic Characteristics of Respondents

This section presents the demographic characteristic of the respondents whose opinions were use in the analysis conducted in the study. The demographic characteristics include the sex, age, marital status, educational qualification, work experience.

Table 1 Demographic Data of Respondents

s/n	Demographic Variables	Grouping	Frequency	Percentage
1	Sex	Male	56	56.0
		Female	44	44.0
2	Age	20-30 years	12	12.0
		31-40 years	30	30.0
		41-50 years	38	38.0
		50 and above	20	20.0
3	Marital Status	Single	8	8.0
		Married	67	67.0
		Divorced	15	15.0
		Others	10	10.0
4	Educational Qualification	NCE/OND	5	5.0
		HND	26	26.0
		BSC/BED	52	52.0
		MSC/MBA	12	12.0
		PhD	5	5.0
5	Working Experience	Under 2 years	5	5.0
		2-7 years	56	56.0
		8-10years	24	24.0
		10 yrs and above	15	15.0

Source: Field Survey 2014

Table 1 present the demographic characteristics of respondents. From the table it can be observed that the distribution of the respondents according to sex is more of male than female, that majority of the

respondents are adult above 30 years of age, that most of the respondents are married, that most of the respondents are well educated with about 52 percent of them being university graduate while about 12 percent of the respondents are Masters Degree holders, as well as 5 percent being PhD holders, that greater percentage of the respondent have good working experience with some between 7 years, 10 years and above.

From the foregoing it can be submitted that the information elicited from the respondent will be genuine and reliable as their distribution in term of sex, age, marital status, educational level, and working experience has the quality to say so.

Correlation Analysis

This section present the correlation analysis conducted in an attempt to identify the relationship between environmental taxation and environmental quality in Nigeria. The evaluation of the hypothesis raised in this respect was done at 5 percent level of significance.

Table 2 correlation result

	Environmental taxation	**Environmental Quality**
Environmental taxation	1.0000	0.671 (0.001)
Environmental Quality	0.671 (0.001)	1.0000

Source : Author's Computation 2014

Table 2 reveals the correlation statistics corresponding to the relationship between environmental taxation and environmental quality in the Nigeria. The correlation statistics of about 0.671, and the probability value of 0.001 presented in table 2 show that there is positive and significant relationship between environmental taxation and environmental quality in Nigeria, which connote that the as environmental taxation get on the increase, the state of environmental quality in the country also respond accordingly. By implication this finding nudge forward the fact that as more of environmental related tax are placed on polluters by regulatory authorities in the country, on the long run the it could spur or culminate into improved environmental quality in the country.

Mean score analysis one

This section presents the analysis conducted in an attempt to justify the influence of environmental taxation on cost effectiveness of Nigerian firms. Analysis of the mean score of the responses in likert scale employed used 3.00 as reference score for evaluation, given the 5 score likert scale used in the study.

Table 3 mean score result 1

Statistics	**Values**
Mean score (calculated)	2.721
Reference score	3.000

Source : Authors Computation 2014

The mean score statistics presented in table 3 reveals that there is no enough evidence to reject the null hypothesis that environmental taxation has no significant influence on cost effectiveness of Nigeria firms, thus suggesting the acceptance of the null hypothesis and prompting the conclusion that environmental taxation has no significant influence on Nigerian firms cost effectiveness. This finding could be attributed to the fact that Nigeria firms through tax evasion and avoidance has not been cornered to the point of paying due environmental related tax that can significantly internalize the cost of negative externalities that ensue from the day to day activities in the country, as such their cost effectiveness has been questioned over time.

Mean Score Analysis Two

The mean score analysis presented in this section correspond to finding whether environmental taxation contribute significantly to improvement of standard of living in Nigeria.

Table 4 mean score result 2

Statistics	values
Mean score (calculated)	1.342
Reference score	3.000

Source : Author's Computation 2014

The result presented in table 4, suggest the acceptance of the null hypothesis that environmental taxation does not contribute significantly to improvement of standard of living in Nigeria, given the computation of the mean response of all the respondents that significantly tilt towards no significant contribution. The observe influence of environmental taxation on improvement of standard of living might be traceable to the fact that the revenue generated from environmental taxation has not been channelled into the development of infrastructural facilities that can improve the standard of living of Nigeria citizenry.

Conclusion and Recommendations

Premise on the findings therefore the study poses the following conclusions:

First that environmental taxation is significantly coterminous with improved environmental quality in Nigeria, as it existence and administration has the tendency to ensure, restore, and maintain environmental quality in the country

Second that environmental taxation has no significant influence on cost effectiveness of Nigerian firms as it administration and structure still remain in the custody of corruption, evasion and avoidance.

Third that the existence of environmental taxation in Nigeria has not culminated into improved standard of living, given the status quo of inadequate infrastructural facilities, income inequalities and high cost of living in the country.

In general therefore the study concludes that despite the inherent capacity of environment taxation to spur development in the country through improve environmental quality, infrastructural facilities, cost effectiveness of firm and standard of living, the prevailing trend has hedged on the contrary in Nigeria.

The study thus recommends that government should ensure that the structure and administration of environmental related tax in the country should be void of loopholes that can permit avoidance or evasion, and that proceed from environmental taxation should be channelled towards the development of infrastructural facilities in the country to ensure improved standard of living in the country.

References

Andrew, L.(2006) The UK Tax System and the Environment. London: The Institute for Fiscal Studies

Baxter, M.(2012) Environmental Taxes Need Review to Stay Relevant. Guardian Sustainable Business Blog, 17 December, 2012.

Bovenberg,A.L and Goulder, L. H.(1996) Optimal Environmental Taxation in the Presence of Other Taxes: General-Equilibrium Analyses *web.stanford.edu/~**goulder**/.../ **Bovenberg**-**Goulder**%20AER%20**1996**.pd...*

Bovenberg,A.L and Mooij, R.A (1998) Environmental Tax Reform and Endogeneous Growth, Journal of Public Economics,63,207-237

Cropper, Maureen, and Wallace Oates (1992). "Environmental Economics: A Survey." *Journal of Economic Literature*, June 1992.

EEA (2009) EMEP/EEA Air Pollutant Emission Inventory Guidebook - 2009

Ercolano, S., Gaeta, G. L., & Romano, O. (2012). *Environmental Fiscal Reform and Wilingness to Pay for the Environment: an Empirical Analysis on European Micro Data.* University of Naples, Naples. Retrieved from http://mpra.ub.uni-muenchen.de/ 39680/
Federal Environment Protection Agency (FEPA) (1998), National Policy in the Environment

Fullerton D.(1997) Environmental levies and distortionary taxation: Comment. *American Economic Review*;87(1):245-251

Fullerton D, Andrew, L and Stephen, S (2008) Environmental Taxes Mirrlees Review 'Reforming the Tax System for the 21st century" Working Paper 14197, USA: National Bureau of Economic Research, Cambridge, MA 02138 http://www.nber.org/ papers /w14197

Fullerton, D. & Metcalf, G. (1997). Environmental controls, scarcity rents, and preexisting distortions. National Bureau of Economic Research Working Paper No. 6091. Cambridge, MA.

Fullerton D, Metcalf G.(1998) Environmental Taxes and the Double-Dividend Hypothesis: Did You Really Expect Something for Nothing?. *NBER Working Paper* 1997/09//;():No. W6199

Fullerton and Metcalf, (2002) Fullerton, D. and Metcalf, G. (2002). Tax incidence. In Auerbach, A. and Feldstein, M., editors, Handbook of Public Economics, volume 4, chapter 29, pages 1788-1872. Elsevier Science Publishers B.V.
Goulder, L.H(1994) Environmental Taxation and the "Double Dividend:" A Reader's Guide. NBER Working Paper No. 4896. Issued in October *1994*

Goulder, L., Parry I., & Burtraw, D. (1997). Revenue-raising vs. other approaches to environmental protection: The critical significance of preexisting tax distortions. RAND Journal of Economics, 28,708-73 1.

Heine,D Norregaard,J and Parry,I (2012) Environmental Tax Reform: Principle from theory and practice to date.IMF Working Paper, WP/12/180

Ian, W.H and John, N and Dirk, H.(2012) Environmental Tax Reform: Principle from Theory and Practice to date .Fiscal Affairs Department, International Monetary Fund (IMF)

James, A and Moses, A (2012) Impacts of tax Administration on Government Revenue in Developing countries. Department of Accounting and Finance, Leicester, UK

John M.S and Wadeskog, A. Environmental Tax and Environmentally Harmful Subsidies. DG Environment and Eurostat, Sweden

Hefferan, M J and Boyd, T. (2010), Property taxation and mass appraisal valuations In Australia – adapting to a new environment, Property Management,28:3, pp. 149-162

Levinson, A(2007) Technology, International Trade, and Pollution from U.S. Manufacturing NBER Working Paper No. 13616,Issued in November 2007

Milne, P (2003) Bayesianism v. scientific realism Analysis,Volume 63, Issue 280, pages 281–288, October 2003

Muhammed, T (2012) Law Environment and Development Journal School of Law, School of Oriental and Africa Studies (SOAS), University of London

Nick, J and Janaki, A(1998) The Distributional Effects on Environmental Tax Reform Environmental Economics Programmes,3 Endsleigh Street, London, UK

OECD (1998), Statistics on Eco-taxes, Progress Report,DAFFE/CFA/CT (98) 19

Pigou, A.C (1920). The Economics Welfare New York

Ronnie,S (2003). The Double Dividend Hypothesis of Environmental Taxes: A Survey Otto-Von-Guericke, University Magdeburg and CES; fo, Munich

Sebastian, J.M and Maurricco, A,V (2013) Are Environmental Taxes Affected by Legislatures' Ideological Positions? Inter-American Development Bank, Department of Research and Chief Economist

Stig, S (2007) Environmental taxes Ministry of Finance, Norway.

Udeh, C(2010) Environmental Management Strategies for City Authority Department of Architecture, University of Nigeria

Walid, Q(2013) Short and Long Term Effects of Environmental Tax Reform. Centre for Rural Economy, Newcastle University.