The Applicability of Green Economy Policies: Governance Approach and Sustainable Development

Fatma Neval Genç, Gülizar Seda Çorak, Murat Yılmaz

Adnan Menderes University, Faculty of Economic and Administrative Sciences,

09900, Nazilli, Aydın, Turkey.

E-mails: *fatmanevalgenc@gmail.com, seda.corak@adu.edu.tr, muratyilmaz@adu.edu.tr*

Phone: +90 256 347 70 11

Abstract

This report tries to focus on how the "governance" approach can enable "green economy" that develops along with change in the field of energy. As is known, governance approach emerged as a product of public administration paradigm starting to change at 1970s, and is

specially emphasized by supranational organizations like The United Nations, The European Commission and The World Bank. This is because; the increasing energy demand leads the world to a new energy economy and the search for renewable energy sources. While financial policies are crucial for sustainable development, applicability and consistency of these policies can be succeeded by networks and tight relationships between the actors that governance has developed.

Keywords:Green Economy, Governance, Sustainable Development, Global Warming and Climate Change, Carbon Tax.

1.INTRODUCTION

Our world experiencing Global Crisis in 2008 continues to discuss effects of this crisis on one hand while it goes through global climate change on the other hand. We encounter with new serious signs indicating that nature becomes more and more unbalanced every passing day. In addition, it becomes difficult to meet unlimited needs of the world population, which increases day by day, through limited resources. Accordingly, search for new resources is launched. Principally aiming at growing after crisis, the world targets sustainable development by giving weight to renewable ones among existing resources in addition to search for new resources.

Today, global climate change is not an agenda topic for only scientists, heads of state and summits but also civil society and economists. This is because; it is possible to recover this problem by adopting "green economy" policies that bring about energy transformation and focus on efficiency, growth and employment in investments. In brief, four main conditions of sustainable development are human, environment, energy and economy. Aiming at creating an active and conscious civil society as a sector, governance approach can introduce a model that is capable of meeting this deficit. This model can be developed through relationships of sectoral and social networks. This is because; global climate change is not a problem that can be overcome by states alone. It is not low-cost, and it does not have boundaries. This study will focus on global climate change, renewable energy resources, energy-economy relationship and "green economy"-related alternative policies developed/expected to be developed by supranational organizations and governments (states) generally and by Turkey specially within the framework of "sustainable development" concept emphasized by governance approach. The present study will also deal with approaches and activities of "civil society", which is expected to take an active role in formation of these policies and is one of main components of governance.

The first chapter focuses on global climate change and the process concerning recognition of the problem. The second chapter deals with birth of the concept of governance and its importance in sustainable development. The third chapter chronologically examines global and local steps taken in the matter of climate change (Rio UN Conference on Environment, IPCC, KYOTO, HABITAT etc.) and touches upon paradigm changes experienced in the administrative mentality and appearance of governance in these steps. The fourth and last chapter focuses on policies and financial instruments developed by developed and developing

countries in the field of green economy, theoretically examines carbon Tax in particular, and discusses possible effects of Turkey's accession to Kyoto Protocol.

1.1. GLOBAL CLIMATE CHANGE: RECOGNITION OF THE PROBLEM

The change our world has gone through since its existence has determined living space, class and cycle of living beings at the present time. The "moment" we are in also bears witness to this change and affects natural change of the world. Considering that earth assumedly started to be formed approximately 5.5 billion years ago and the first living being assumedly appeared 3.5 million years ago, and the first human being started to live on the earth just nearly 100 thousand years ago, it is possible to say that there is a difference of 5.4 billion years between formation of earth and start date of human being to live on the earth. Apart from problematique of evolution and physical development of human beings, which is included in the field of study of anthropologists, looking at universal content historical data we have, we can say that human being got acquainted and started to interact with earth not a very long time ago from the point of earth. This interaction, which covers the entire history of human being, is a process still continuing. It is accepted that human beings have deformed earth and atmosphere within this process as a result of invention of machinery, industrialization and rapidly increasing growth of technology.

The surmise that natural cycle of the world was deformed due to human factor was reached upon examination of external effects (seasons, weather events etc.) and movements (rotation of the world, crustal movements etc.) experienced by human beings that come from "nature". It was stated for the first time in declaration of 1972 UN Stockholm Conference that everyone had a right to have good living conditions in a quality environment. This right was included in "third-generation rights". The 56th article of the Constitution of the Republic of Turkey says, "Everyone has the right to live in a healthy, balanced environment." and emphasizes that it is the duty of the state and citizens to improve the natural environment, to protect environment health and to prevent environmental pollution. Limitedness of bearing capacity of the environment was also suggested for the first time at Stockholm Conference. In this context, a basis of the sense of sustainable development was formed.

Environmental problems had been categorized as air pollution, water pollution and soil pollution until the last twenty years. However, the earth started to get heated as a result of increase in technology use, non-controllable growth in industrialization, and emission of greenhouse gases (carbon dioxide, methane and ozone gases having heat retention features), therefore global warming and climate change problem came to be more important than all other environmental problems. This is because; no other problem than global climate change and global warming has directly threatened humanity to this degree. Global warming is a deepened problem, which is also associated with other environmental pollutions. Global warming was a topic discussed only in a couple of academia of developed countries in the 1980s. The importance of the problem was recognized at a lated speed. Upon recognition of the problem, The World Climate Conference was held in 1979, and a scientific infrastructure was prepared through establishment of Intergovernmental Panel on Climate Change (IPCC) in 1988 (Karakaya, 2008:11).

Global warming and environmental problems have no boundaries. It is not possible to expect that a pollution experienced in Asia will not affect other lands and oceans of the world. From this point of view, global climate change is a common problem of all individuals, all states and all organizations, and can be overcome only through cooperation and common will. One should not regard policies developed in regard to global climate change as of special power groups. Global order is not static, but dynamic. In fact, governance approach is an important paradigm to avoid this idea. Decisions should be made through participation of different actors from each level. They should be implemented through efforts, interaction and supervision of these actors.

A large number of international studies, meetings and agreements have been carried out up until today regarding environmental problems and global climate change, which are considered common problem of the entire humanity. However, active "stakeholder" participation, openness, transparency, accountability, measurability, effective communication channels and a fair environment are needed in decision making, implementation and evaluation processes for adoption, applicability and consistency of generated ideas, prepared plans or alternative policies. Considering that environmental problems are regarded as a common problem of the entire humanity, governance approach is closely related to ensuring green economy and sustainable development with participation paradigm and principles it has developed. It would be appropriate to touch upon dynamics and history of governance approach prior to proceeding to relationship of governance with sustainable development and green economy and mentioning financial policies implemented for green economy.

2. PARADIGM CHANGE EXPERIENCED IN ADMINISTRATIVE MENTALITY: GOVERNANCE

General propositions made concerning classical administrative mentality and traditional public administration organization (Weber Bureaucracy) started to remain incapable as expectations and demands from states increased because different administrative mentalities were adopted by different countries as a result of new world order after the World War II and need-based consumption approach of citizens changed. Firstly, in the 1960s, different bureaucratic models were compared through Comparative Public Administration. At the end of this comparison, non-functionality of principles of classical public administration approach (rules set in detail, strict hierarchy, specialization, unity of command, over-monitoring) was revealed. New Public Administration and New Public Management approaches, which shifted public administration to business administration axis and aimed at eliminating democracy and representation crisis having gone on in public administration in a certain way, survived until the 1990s. It can be thought that these approaches emerged as alternative models to criticisms addressing to interventionist structure of state. However, both mechanisms of state and citizens should internalize behavioral changes required by democratization within the process where democratic systems and constitutionalism are questioned, and they should go through different experiences in order to advance their political cultures and levels of consciousness in this direction. Efforts that were launched by democratic systems on the way to achieving best as of the 1980s in particular focused on new models and concepts allowing for direct participation of people in government and aiming at

removing jacobinism and fanaticalness. Public administration order experiencing a crisis of concept and identity (Kalfa, 2011:404) adopted an utterly different identification with the concept of "governance". Although the concept of governance had appeared in some academic studies in the USA beforehand, it took the first serious stage in the Report named, "Sub Saharan Africa: From Crisis to Sustainable Growth; A Long Term Perspective Study" published by The World Bank in 1989 as "good governance". Then, it was generalized by United Nations, OECG and IMF in the following years (Uysal et al., 2011: 15). The concept of "governance" taking shape with the slogan, "State that does not row, but steers" (Koçak, 2010:470) enabled necessary meanings to be attributed to it in a field having certain meaning deficits. Governance approach, which includes active and effective urban administrations within the framework of the participation-localization-demilitarization triangle instead of clumsiness of traditional public administration mentality in provisions of services and fulfillment of demands, covers more flexible and horizontal organization instead of complicated traditional public organization allowing participating at minimum level and includes active civil society as a sector, has adopted the following principles as general administration principles: transparency, openness, participation, accountability, flexibility, effectiveness and efficiency in use of public resources. Governance approach develops partnership and cooperation model in administration. According to Public Administration dictionary of TODAIE, governance is a structure or order formed by results obtained through joint efforts of all relevant actors in a social political system (Bozkurt and Ergun, 2008:274).

Versatility and participation of governance as a model refers to participation and coming together of all actors/parties in a public administration system in terms of order (Gündoğan, 2010:16-17). Development of methods aimed at solution of problems by the society itself is of great importance for legitimacy of decisions and achievement in solution of problems. In governance, society consists of relationships between networks of public, private and voluntary organizations. Thanks to relationships and partnerships between networks, active participation of different segments of the society is ensured. These partnerships bring about a special link. Networks with different characteristics (civil–military bureaucracy, private sector, non-governmental organizations) play an active role in the process of constituting public policies within interaction and communication with one another (Üstüner, 2003:49-50). What is important is to enable for networks with different structures and different characteristics to meet on a common ground in policies to be constituted and decisions to be implemented. Civil society, which is now regarded as a sector, has started to lead the state. In this sense, governance puts an emphasis on active citizen and civil society participation at each level (local-national-international), but on a local scale in particular. Governance should be adopted as a model and system in order for green economy policies, which are developed to ensure sustainable development, to be set and implemented. It is an inevitable requirement to determine financial-economic solution models developed or to be developed concerning global warming and climate change, which are common problem of today and future, through participation and support of multi-stakeholder partnerships and active civil society.

3. SUSTANABLE DEVELOPMENT-GOVERNANCE RELATIONSHIP

Having summarized multi-level and participatory structure of governance, it is necessary to emphasize the meaning carried by governance in terms of sustainable development.

Sustainable development is a concept representing the relationship, more precisely the compromise between economic development and environment (Sönmezoğlu, 1989:547). In this context, we think that it would be more useful to touch upon history of sustainable development and its link with governance without proceeding to economic dimension of the issue.

3.1. Governance, Rio UN Conference on Environment and Agenda 21

Recognition of problems related to environment and natural cycle of the world took place in the 1960s when the Cold War made its presence felt. The fact that habitat, living space of human beings, and future of humanity were in danger was understood during discussion of dimensions of nuclear armament and disaster scenarios likely to emerge during nuclear war. Following these discussions, a rapid increase occurred in studies on environmental problems and future of humanity. Club of Rome, which regarded itself as "world citizen" and expressed its anxieties about future of humanity, published the report named "The Limits to Growth" in 1972, which made its mark on the last forty years (Bardi, 2011: ix). This report emphasized that facilities of environment for human beings to live in the next generations were decreasing more and more. The fact that this report was followed by UN Conference on the Human Environment, foundation of the UN Environment Programme, acceptance of Declaration of the Human Environment and establishment of World Commission on Environment and Development in 1983 revealed that environmental problems could not be ignored by governments or supranational organizations, and that sustainable development approach should absolutely be adopted when constituting both economic and political policies.

A frightening picture was drawn in Bruntland Report (Our Common Future) run by UN in 1987 concerning future habitable spaces and resources in the world, and a basic definition was made for sustainable development in parallel with that. The report defines sustainable development as, "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Çetin, 2006:2). According to this report, the only way out of humanity against environmental problems, which got harder and harder every passing day, was to establish a bridge between environmental development and economic growth and to make development sustainable (Yıkmaz, 2011:17). Certain recommendations and warnings were given to governments concerning revision of growth, risks associated with technology use, controlling population increase, adoption of economic policies in accordance with environmental problems and sustainable development.

Evaluations made in the period until 1992 demonstrated that consciousness about the matter and precautions taken for preventing environmental problems fell short of the expectations. Decisions having the characteristics of a recommendation and investigations performed in the form of an assessment did not have any deterrent force. 1992 Rio UN Conference on Environment (Rio Summit/1992 Earth Summit) became an important step for adoption of sustainable development with action strategies and outputs it developed. Sustainable development constituted main agenda of 1992 Rio UN meeting. At the end of Rio Summit, Rio Declaration was published to indicate rights and obligations of countries in the matter of

global climate change and development and to determine principles of sustainable development. Agenda 21 action plan, which is referred to as an expression of a global consensus and political commitment at the highest level aiming at actualizing "sustainable development" which targets establishment of a balance between development and environment (Aydın Kent Konseyi [Aydın City Council], 2011), was drawn up as an annex to the declaration.Prepared with the aim of reducing destruction on nature and abandoning all kinds of technologies harming the environment, Agenda 21 set the agenda of the 21st century as "sustainability of humanity". Agenda 21 highlighted inevitability of global partnership for achieving the said sustainability. In addition, Agenda 21 is different from other studies in that it argues that non-state actors should also share the responsibility for preventing environmental problems and ensuring sustainable development (Göktürk, 2008:3).

Agenda 21 emphasized the importance of participation and cooperation of local governments in process for planned activities to be carried out and goals to be achieved. In parallel with that, it was decided to set Local Agendas 21 to determine problems on site, to monitor activities, to ensure local participation and to do principal local plans (The Rio Declaration on Environment and Development, 1992: the article 28). In this scope, establishment of Local Agenda 21 mechanisms became another output of the conference whose main theme was sustainable development. Within the framework of this idea, local Agenda 21 aims at preparation and implementation of a long-term strategic plan concerning achieving goals of Agenda 21 and bringing solutions to local sustainable development problems, and requires actualization of governance based on participatory and multi-actor local partnerships within the scope of this target (Göktürk, 2008: 2).

It would not be wrong to say that Local Agenda 21 mediates localization and legitimation of global decisions. Local Agenda 21 introduced governance model, which was based on partnership and participation, instead of urban administration based on centralization and hierarchy. The first organization in which the concept of governance became a subject to international strategies is meaningful in terms of our topic. As mentioned above, it was planned in the third chapter of 1992 Rio UN Conference on Environment to constitute units close to people in order to ensure participation and cooperation via governance approach through becoming a field and instrument of collective administration with common participation of all actors in the system by setting aside a one-way administrative mentality. In this context, it was aimed at establishing a governance network based on participation by means of Local Agenda 21 mechanisms.

From 1992 UN Rio Summit to the present, many studies and meetings have been conducted on sustainable development at both national and international scales. Among these efforts, UN Framework Convention on Climate Change (1994), Istanbul HABITAT II Summit (1996), KYOTO protocol (1997), UN Millennium Summit (2000) Johannesburg Summit (2002) and projects and compressive studies carried out for Rio+20 Summit (2012) can be regarded as held within the body of United Nations. As a founding member of the United Nations, Turkey did not remain indifferent to efforts performed. Turkey developed policies on the basis of sustainable development and governance, and consistently emphasized sustainability and a participatory administration model in its development plans. As a matter of fact, the seventh chapter of the 9th Development Plan includes the article, "Fulfillment of

international obligations will be realized in the framework of the principle of sustainable development and the principle of common but differentiated responsibility" (SPO, 2006). In 2010, SPO prepared the comprehensive Turkey 2010 Millennium Development Goals Report, and set the target of integrating sustainable development principles with country policies and programmes and reversing annihilation of environmental resources (SPO, 2010). In the 2012 programme of the 9th Development Plan, policy priorities and measurements are mentioned following the article, "Main goal is to reach adequate environmental protection level and to make cities clean and safe places with high life quality through protection of human health, natural resources and aesthetic values in accordance with sustainable development principles" (SPO, 2011). Specialized Commission Report on Good Public Governance discussed the actions to be taken in order to ensure participation at each level and to activate civil society. National Biodiversity Strategy Action Plan (2007) and finally National Experience on Carbon Markets and Future Outlook (2011) reports indicate that Turkey is included in, willing for and interested in environmental sustainability process.

Since main purpose of our study is to establish the link between governance, sustainable development and green economy within a theoretical framework and under particular limitations, it is not possible for us to present information pertaining to all studies and activities conducted from Rio up to the present.

3.2. Governance in Constitution of Sustainable Development Policies

Measurable targets can be set and these targets can be accomplished if policies and practices concerning environmental problems are developed based on cooperation of various stakeholders/partners (central government, local governments, civil society and private sector), that is, governance.

It is important to focus on governance approach concerning how to ensure sustainable development. In this scope, reports such as "governance for sustainable development" (UNED, 2001) and "global environmental governance" (Halle and Najam, 2011) were prepared, and policies suggested in these reports were implemented. It was emphasized in the Governance for Sustainable Development report that governments, supra-national organizations and civil society had a general deficiency in implementation of sustainable development following the 1992 Rio Summit, that the deficiency stemmed from non-existence of sufficiently harmonious actions of the said networks, and that common policies for future should be generated and implemented within the framework of governance.

International Institute for Sustainable Development (IISD) holds the idea that administration of networks and partnerships is not same as that of classical organizational management. While classical administrative mentality makes mention of use of personnel and financial resources, business plans and work evaluation, governance approach focuses on shaping relationships between actors and stakeholders and accountability of structures acting in cooperation and actions of these structures. This is because; it is difficult to ensure transparency and accountability of multi-stakeholder partnerships within classical organizational management approach. Accountability is a concept answering the question,

"Why is a work performed; who is responsible for this work; in which aspect is this person responsible for work?" Accountability becomes bidirectional when processes and plans are distributed to exercise one's authority and obligations are expressly indicated and responsibility is shared. While a vertical accountability-based partnership is formed in the top management mechanism, there is a horizontal accountability between stakeholders/partners. A fair process which includes transparency of information and decision making processes as well as negotiation and participation methods is required for policies constituted and decisions made by administration mechanisms, courts and all kinds of decision making bodies to acquire public confidence and support.

According to International Institute for Sustainable Development (IISD), key aspects of governance that should be discussed in terms of sustainability include (IISD,2011);

Vision, mission, goals and objectives – what is the network or partnership all about?

"Network principles" or "partnership principles" – operating values that guide collaboration.

Decision-making process - what types of decisions does the membership have the authority to make, or to delegate their representatives to make?

Accounting / reporting – how will the network or partnership report to its stakeholders and broader communities/audiences on its work and its financing?

Other issues that may be of concern - e.g., project proposals and results of projects; role of the secretariat; roles of special committees; procedures for withdrawing from the collaboration; dispute-resolution mechanisms; and limitations on advocacy.

Upon looking at the above-mentioned key aspects, it is observed that governance steers sustainable development discussions in the matter of determination of international strategies at a local and global scale.

Governance approach also focuses on civil society-government partnership, a public organization mechanism's hosting a partnership for sustainable development, and possibility/impossibility of ensuring a cooperation between organizations completely independent from governments (IISD, 2008: 10-21). International organizations established for sustainable development have generally focused on the concept of multi-stakeholder governance. In a public system, authority and power generally come from state. However, this power is legitimized only when it is shared. During environmental governance discussions, legitimacy basis of green economy policies is sought in common decision-making processes. Relevant international organizations and supra-national organizations, the United Nations in particular, accept that consistency can be achieved in implementation of these decisions only through a multi-actor participation which is parallel with governance approach. It is possible to see this situation in reports, studies and plans published. Green economy policies, which are expected to make sustainable development possible, undoubtedly include technical issues and require establishment of initiatives/networks with high technical capacity. At this point, recommendations and opinions related to targets are expected from groups of specialists in order to set measurable targets and develop technical strategies. 1992 Rio Declaration (UNCED 1992) demonstrated that consciousness of and responsibility for environmental and social issues were inevitable, and emphasized that this

responsibility had to be distributed among all stakeholders. Participation of people and all actors in the system (a whole of pieces interrelated with one another) is of great importance for regulations made for solution of the problems to bring about public benefits. It is undoubtedly a basic truth that each one of stakeholders has different characteristics, and they are not actors with the same importance level. Pre-determination of goals and expectations helps us concerning which organizations should make what kinds of attempts, and what kind of roles the stakeholders will take within initiative. Pre-determination of goals and expectations is a necessary stage in terms of attribution of different characteristics to each stakeholder and differentiation of roles of stakeholders. Multi-stakeholder process is an effective model for development and implementation of environmental and social responsibilities, and leads actions in accordance with sustainable development approach. In conclusion, governance of stakeholders is an approach that should be primarily adopted for ensuring conformity between new institutional structures formed to overcome environmental problems, which is a public issue.

IISD developed various strategies to ensure sustainable development in particular. Sustainable development strategies are not a simple documentation. These plans are an adaptable and consistent process of strategic and coordinated activities (Figure 1). The model can be expressed as follows (IISD, 2011b);

- It is necessary to develop a vision for an effective and progressive process based on mutual consensus, to continue to set new goals and to determine returns of achieving these goals, and to use this achievement as a guide for the next step of learning process.
- A particular importance should be attached to establishment of coordinated mechanisms and continuous monitoring of operation of such mechanisms.
- Model of the governance, which creates a difference, has a special place in the sense that it adopts harmonious strategic processes rather than big planning schemes, competition rather than authoritativeness, a strong relationship between networks and hierarchical structure rather than strict hierarchy, monitoring, learning, progressing and feed backing rather than controlling, and learning more rather than being content with what is known.

Figure 1:Components of Strategic and Coordinated Activities Aimed at Sustainable Development: National Sustainable Development Strategy and Process

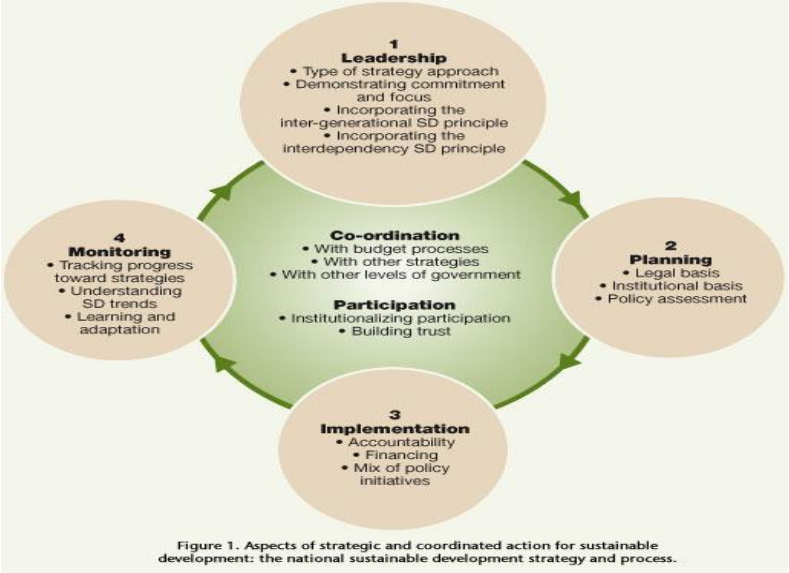


Figure 1. Aspects of strategic and coordinated action for sustainable development: the national sustainable development strategy and process.

Reference: (International Institute for Sustainable Development, 2011)

According to this model, leadership, planning, implementation and monitoring processes are followed on the basis of participation and coordination. Leader should determine strategic approach, show his/her commitment to and concentration in the issue, internalize sustainable development principles aimed at intergenerational and mutual solidarity, and have other stakeholders adopt the same. Plans should build on a legal and organizational basis and be subjected to a political evaluation. In the implementation process, a particular attention should be paid to accountability, financing and intervention of policy initiatives in the process. In the monitoring process which is the last component; evaluations should be made in regard to strategies, sustainable development approach should have been understood, and learning and adaptation process should have been gone through.

Other examples of efforts of UN and its affiliated organizations on governance-sustainable development relationship are "National Strategies for Sustainable Development" (NSSD) research project and "Governance Structures for National Sustainable Development Strategies" (GSNSDS) studies. NSSD is an international common research project concerning strategies undertaken and stakeholders efforts conducted for sustainable development on a national scale in various countries. GSNSDS is an effort in which a study group constituted by OECD within the body of International Institute for Sustainable Development examines good governance examples and their effectiveness regarding sustainable development strategies in approximately 20 countries.

4. ECONOMIC and FINANCIAL POLICIES DEVELOPED IN THE WORLD AND IN TURKEY WITHIN THE FRAMEWORK OF GREEN ECONOMY

Although recognition of Global Warming and Climate Change problem, attraction of attentions to this issue, and rise of level of consciousness have made up the first step, it is a fact that deterrence can be achieved only through economy. Therefore, the most effective way of protecting the environment is adopting methods such as making polluters to compensate for harms of their activities harmful to environment, introducing tax incentives for activities not damaging the environment, legally prohibiting practices harming the environment or imposing additional tax burden on these kinds of practices (Bilgin and Orkunoğlu, 2010: 80).

In this way, production and consumption channels will turn to encouraged eco-friendly mode of production or consumption of substitute goods instead of carrying out an activity within the scope of environment tax in order to avoid additional tax burden. Considering from the point of public revenues, the fact that administrative costs of environment tax practices are lower than other practices38 and they have an impact reducing tax burden on other sources of taxation thanks to income-generating feature will create a positive impact (Bilgin and Orkunoğlu, 2010: 80).

38 Financial instruments reduce administrative expenses as the cost for decreasing sourcing through command-control mechanism is several fold more than the cost for decreasing it by implementing environment tax (FULLERTON et al., 2008:3).

4.1. Financial Instruments Used in Environmental Policies

Environmental policies phase of sustainable development includes guiding decisions and acts of economic actors in favor of environment by increasing costs of choices bringing a high level of damage to environment and encouraging the choice with a high social benefit.

Among many components of environmental policies, the most effective ones are policies built on the market basis in that they are cost-effective and enable new production techniques to be created and expanded through supporting eco-friendly technologies.

Financial instruments related to environment can be examined under two groups. However, scope of the present study only theoretically deals with purpose and effects of environment taxes and, focuses on Carbon Tax collected over carbon-content fuels, which are the most important cause of global warming and climate change.

4.1.1. Environment Taxes: The fact that right of possession and disposition of global collective goods (free goods) belongs to entire world and environmental resources do not have any price set under market conditions causes these resources to be used abusively. In addition, environmental effects lead to externalities that mean social benefit or cost. While beneficial externalities increase social welfare, the cost aspect of it lays a burden on the society. Accordingly, the most important instrument in environmental policies is to enable environmental externalities spreading as social cost to be compensated by those causing this externality by imposing an additional tax burden, that is, to "internalize externalities" as stated in the literature.

In the European Union and OECD countries, taxes are implemented within the framework of environmental policy through adapting existing taxes to environment39 and loading an additional tax burden on polluters for their activities causing negative externalities in the environment. Accordingly, the expression of environment tax includes both taxes and duties and charges (Çelikkaya, 2011:99).

Environment taxes have double dividends in the sense that they internalize negative externalities, and reduce tax burden on labor and capital thanks to revenue earned from this tax (Fullerton et al., 2008: 3; Monrgenstern, 1995: 6).

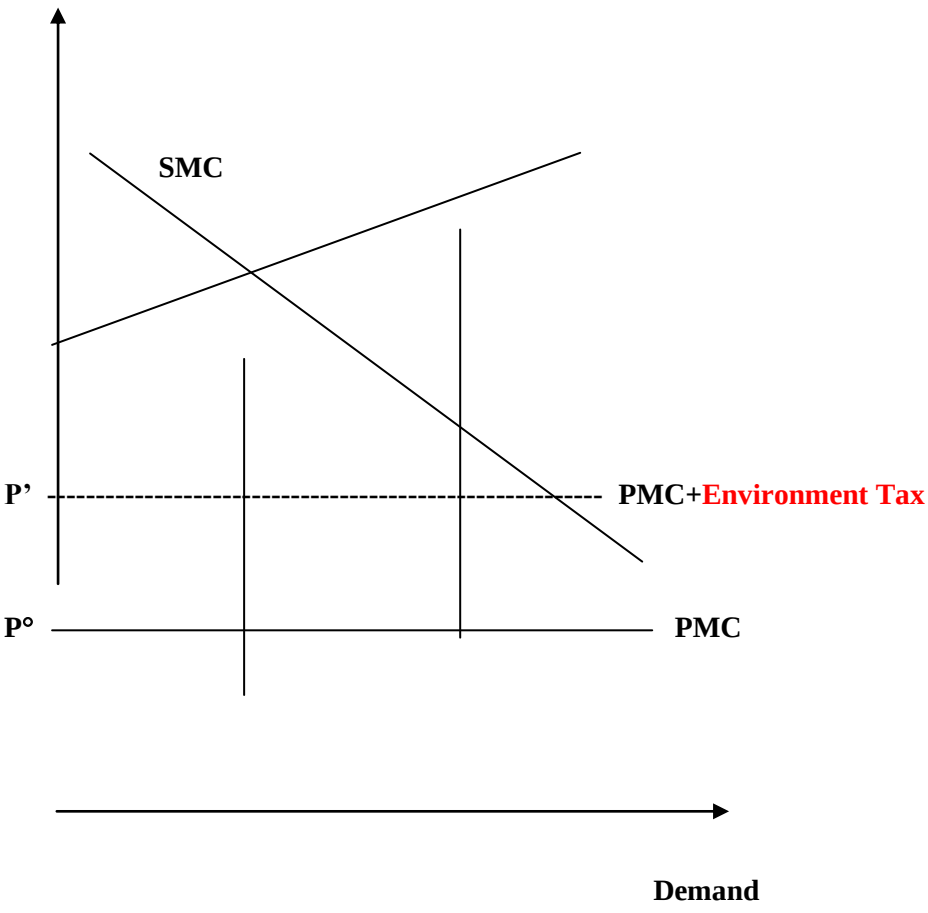
4.1.1.1. Purposes of Environment Taxes

39 That tax collected over lead gasoline, which is more harmful to environment due to lead content, is higher than the tax collected over unleaded gasoline, which is less harmful to environment, can be given as an example for this practice which is called tax discrimination.

4.1.1.1.1. To Internalize Negative Externalities: Economic units that carry out activities harmful to environment create a cost that does not reflect on market price of these harmful goods, which is social cost. This is a market failure (Çelikkaya, 2011: 99). An additional tax should be imposed on those causing social cost as a price to eliminate this failure. This is because, environmental resources are public goods, and if an additional tax is collected over use of these resources, market price of the resource subject to tax will increase, and therefore a decrease will be achieved in consumption, which is the goal desired to be accomplished. In addition to fall in environmentally hazardous consumption, new, cleaner and eco-friendly production technologies will be adopted from the side of production.

4.1.1.1.2. To Reduce Tax Burden on Labor: It is aimed for special tax on environmentally hazardous activities to reduce burden of taxes such as income tax, special security premiums and corporate tax by increasing tax burden on these activities, that is, to enable for tax burden to be distributed more fairly (Çelikkaya, 2011:99).

Chart 1: Reducing Effect of Environment Tax Revenue on Tax Burden on Labor



Q′ Q°**Amount of Consumption of Goods Polluting the Environment**

Reference : *(Fullerton et al., 2008:11)*

"Let's assume that we will examine the market of an environmentally hazardous goods under a circumstance where there is no state control concerning environmental pollution. Demand curve indicates marginal utility provided by this goods for consumer at the end of consumption. In this market, marginal utility (demand curve) and private marginal cost (PMC) intersect at P° price and Q° amount levels. However, negative externality caused by consumption of environmentally hazardous goods creates a cost on the rest of the society. Accordingly, Social Marginal Cost (SMC) is higher than Private Marginal Cost (PMC). In this market, λ ratio of tax to be applied according to who pollutes pays for it approach (Piqovian approach) will reduce the difference between social marginal cost and private marginal cost (by increasing PMC), accordingly price of this goods will rise from P° level to P' level. Rise in price will lead consumers to consume less by guiding them to substitutes of the said goods" (Fullerton et al., 2008: 11).

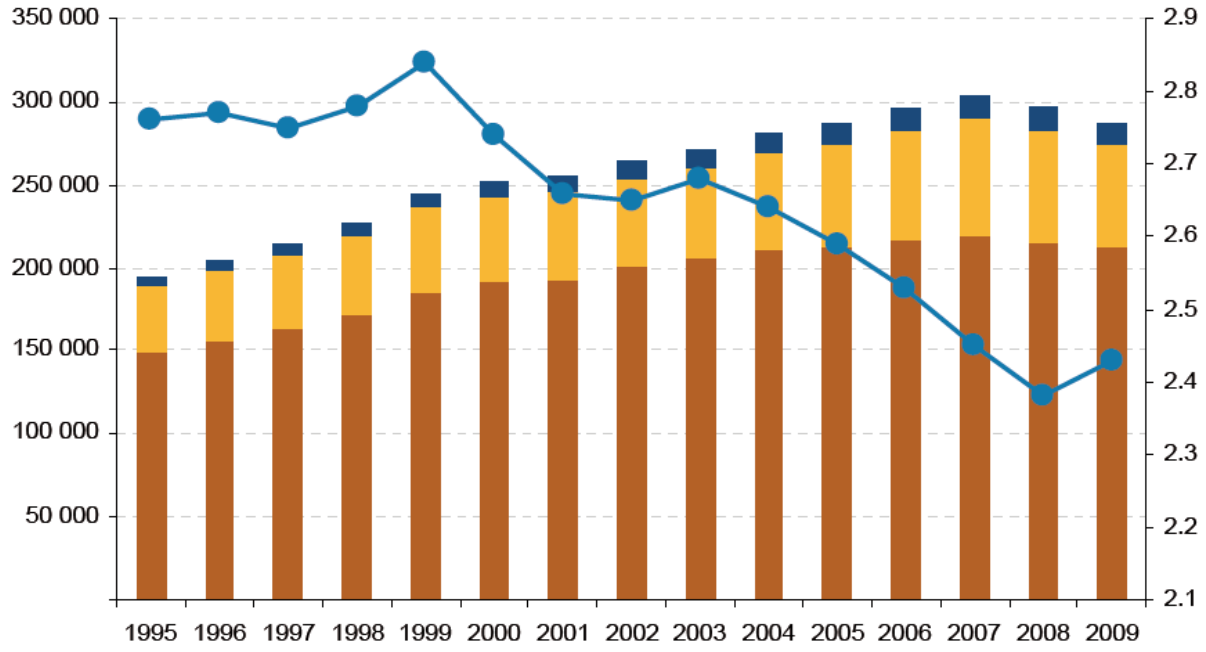
Increased revenue obtained by state through environment tax will reduce the tax collected over incomes. In this way, the difference between gross revenue and net revenue of employees will decrease, accordingly labor supply will increase. As a result, tax burden on labor will be decreased (Fullerton et al., 2008: 11).

4.1.1.1.3. To Generate Revenue:Sustainable development and green economy mean protecting the nature for today's generation as well as next generations (Regional Environmental Center REC Turkey, 2006: 9). Many financial policies adopted for this purpose fulfill their financial functions as other taxes do in the sense that they generate revenue for state.

Chart 2: Environment Taxes in EU (Billion Euro, GDP %)

Energy Transportation Pollution and Natural Resources Total Environmental Percentage of Taxes in GDP

Reference: (Stamatova and Steurer, 2011: 1)



4.1.1.2. Economic Effects of Environment Taxes

4.1.1.2.1. Effect of Environment Taxes on Distribution of Income: Taxes levied on investments are already addressing to rich people who have a chance to replace their investments with eco-friendly investments supported by state. Since low-income families allocate higher amount of money to fuel in comparison to high-income families (Akkaya, 2000:3) and use fossil fuels like coal, they may be negatively affected by carbon tax. However, this situation is prevented through exceptions granted up to certain energy consumption levels40(Akkaya, 2000: 3).

On the other hand, carbon tax is seen to have neutral effect on distribution of income (Akkaya, 2000: 3) considering other indirect effects such as restriction of environmentally

40 In The Netherlands, no tax is collected for consumption of 800 cubic meters natural gas and consumption of 800 kwh electricity. It is seen that tax imposed for decreasing energy consumption keeps its effectiveness as this exception amount is not set as very high (Akkaya, 2004:4).

hazardous consumption, use of revenues for encouraging investments, fall of tax burden on labor and provision of compensatory payments (Özdemir, 2009: 22–23).

4.1.1.2.2. Effect of Environment Taxes on Competition: In countries implementing green tax reform, some sectors recommend ways such as voluntary participation instead of environment taxes because of possibility of these taxes to affect international competition negatively.

There will as many winners as losers in sectoral or international competition at the end of environment tax practices. In fact, an effective taxation in fight with pollution will also decrease costs in the long term. In addition, the more countries adopt implementation of environment taxes, the less international competition is affected. After all, it is tried to prevent loss of competitiveness through implementing exemption, exception and tax return mechanisms in many sectors, and revenue of environments taxes collected is returned to these sectors as incentives.

4.2. Carbon Tax

Among environmental problems, the most hazardous one is global warming and climate change. The basic reason for that is greenhouse gases emitted during burning of fossil fuels whose usage has gradually increased since the Industrial Revolution (Koç and Garip, 2008:151). Carbon dioxide gas has the greatest share in greenhouse gases concerning which policies are directed by the Kyoto Protocol. Karbon Tax, which is a specific tax collected over carbon emission amount, is the most important phase of fight with climate change in terms of financial instruments.

When there is an activity of an economic actor causing a negative externality in the environment, this externality turns into social cost if it is not included in the market price. Accordingly, policy instruments may be deterrent only if they directly increase costs of relevant activities through affecting prices. Therefore, Carbon Tax collected over carbon-content fossil fuels based on the principle, 'who pollutes pays for it' seems to be the most effective instrument.

Although environment is a global property and the problem should be solved by taking global-scale measurements, it is not possible to implement a global taxation. However, Carbon Tax is undoubtedly the most important tax as it appears in many international agreements and introduces inter-country partnerships in terms of implementations.

Even though cost of environmental problems and fights with these problems is high, it is seen that marginal cost of protection by carbon tax is less than marginal benefit to be obtained through protection of the environment (Hotunluoğlu and Tekeli, 2007: 112).

Carbon taxation is a practice aimed at reducing the difference between private costs occurring in the situation where no tax is imposed and social cost imposed by negative externalities, which occur at the end of activities causing carbon emission, on society by adding carbon tax

burden to cost functions of those performing such activities (Hotunluoğlu and Tekeli, 2007:111). Reduction of carbon emission was suggested in 1988 Toronto Conference, and a reduction target of 20% was set for the first ten years (Repetto, 1992: 54). It was decided to determine emission strategies for a common purpose in UN Convention on Climate Change, which was signed in 1992 with participation of more than 150 counties (Repetto, 1992: 54).

In the first ring of production chain; taxation is implemented starting from fossil fuel sources such as mines and wells, which affects all stages of fossil fuel use as it reflects on producers and companies processing these sources or using them as inputs and consumers such as households purchasing carbon-content goods and services. Consumers will respond to rise of energy prices by carbon tax by using less fossil fuel, and producers will react to it by turning to less carbon-content inputs (Repetto, 1992:54). However, effectiveness of carbon tax depends on price flexibility of fuel41 and return of carbon tax revenues to clean investment and production techniques (Çelikkaya, 2011:104–105).

In regard to development process of carbon tax in practice, we can say that it started to be discussed for the first time in England in the 1970s. However, carbon taxation was firstly implemented by Finland in 1990, and Norway and Sweden in 1991. Then, the Netherlands and Denmark put it into effect. These countries were the first EU member countries adopting carbon tax (Hotunluoğlu and Tekeli, 2007:115; Çelikkaya, 2011:104–105)).

4.2.1. Effectiveness of Carbon Taxation in Practice

Carbon tax transfers right of possession from those polluting the environment to state. Therefore, individuals have to pay tax to state in order to get back their right to pollution. In this context, carbon tax, which is effective as an economic instrument, intervenes in the market, and accomplishes environmental purpose through equalization of marginal social benefit and marginal social cost. In addition, financial purpose is accomplished by generating public revenue (Hotunluoğlu and Tekeli, 2007).

While some people argue that since tax increases costs, it will create a disadvantage for domestic producers especially in energy-intensive sectors, opponents state that carbon tax will encourage new technological developments and bring about positive results in terms of competition in the long term (WRI, 2008: 1–2)

Some econometric analyses demonstrated that environment taxes collected in countries implementing carbon taxation did not have any significant effect on carbon dioxide emission. This situation can be attributed to three reasons (Hotunluoğlu and Tekeli, 2007:121-122):

41 Environment-related taxes are mostly implemented in the sectors of energy and transportation. According to estimations, flexibility is high in the energy sector in the long term. Therefore, environment taxes have a very important effect on reduction of energy demand in the long term. Studies on gasoline demonstrate that price elasticity is quite high (Kulu, 2001:3).

Environment taxes do not cover the entire carbon dioxide emission, and requirement for tax to cover the entire emission mentioned in the carbon theory tax cannot be achieved.

Energy-intense sectors using significant amount of fossil fuels have an influence on government for giving exceptions and exemptions as they become disadvantageous as a result of rise in costs by tax (WRI, 2008:1–2), they fail to proceed to clean production techniques in the short term, and accordingly they face the danger of falling behind in international competition. This tax cannot completely accomplish its environmental and financial purpose due to exemptions granted in this manner.

Although the primary purpose of this tax is to restrict environmentally hazardous activities and carbon emission in theory, financial resource-related purpose is attached more importance because of large amount of tax revenues (Yıldız, 2006: 104).

In addition, it is seen that environment taxes, which must directly regard the environmental goal and are "primarily" categorized as environmental taxes, are shaped as taxes collected over goods due to ease of implementation instead of adoption as a pollution tax (Akkaya, 2000:3).

How these tax revenues are used is of great importance for effectiveness of implementation of carbon tax. Obtained tax revenues can be used for meeting budget deficits in order to ensure macro-economic stabilization independently from the purpose of taxes. This, however, requires tax ratio to be at a level to keep tax revenues at maximum42. Accordingly, if Carbon Tax is not raised to a level sufficient to be deterrent for obtaining large amounts of tax revenues, it will not be possible to reduce harmful gas emission to the level targeted within the framework of sustainable development (Tekin and Vural, 2004:325).

Ratios in goods and services on which all types of environment taxes will be implemented must be correctly set in order to accomplish the purpose effectively. Considering Carbon Tax, which is collected in direct proportion to carbon content, tax to be imposed on coal must be higher in comparison to natural gas as it is a more polluting fossil fuel due to carbon content it contains (Akkaya, 2000:3)

4.3. Kyoto Protocol and Turkey

The most important legal document concerning reduction of carbon emission is Kyoto Protocol. According to this Protocol, countries appearing on the Annex-1 list of the Protocol (EU member countries being in the first place) have to reduce their emission levels by %5 from levels observed in 1990 during the 2008-2012 period. Turkey became a party to Kyoto Protocol with a Law accepted on 05/02/2009, and made a commitment to reduce carbon emission until 2013. In this way, parties to the Protocol entered into an important obligation regarding prevention of environmental pollution (Regional Environmental Center REC Turkey, 2006: 31).

42 Laffer Curve.

Unlike other agreements, Kyoto introduces three flexibility mechanisms in order to decrease costs in reduction of greenhouse gas emissions (Republic of Turkey Ministry of Environment and Forestry, 2009:24-25):

Joint Implementation: This is a project-based mechanism to be implemented by countries appearing in Annex-1. If necessary conditions are fulfilled with this implementation, Annex-1 countries can conduct emission reduction project among themselves. That is to say, when an Annex-1 country achieves emission reduction, it wins an "Emission Reduction Unit", and can sell this amount to another Annex-1 country.

The Clean Development Mechanism: This mechanism is implemented between Annex-1 countries and non Annex-1 countries. Annex-1 countries are regarded to realize an actual reduction in emission ratios through technology transfer within the scope of projects they carry out in non Annex-1 countries. Annex-1 countries use Certified Emission Reduction Credits they have won at the end of the project within the scope of their own reduction obligations, and gain right to generate more emissions in the country up to this amount.

Emissions Trading: In this market-based implementation, if any country included in Annex-1 list achieves more emission reduction than it commits, it can sell this additional reduction defined in Annex-B to parties included in Annex-1.

Table 2: Turkey's Current Participation in Flexibility Mechanisms

Kyoto Instruments	**Host Country**	**Guest Country**
The Clean Development Mechanism	NO .	YES .
Joint Implementation	NO	NO
Emissions Trading	NO	NO

***Reference**:(Republic of Turkey Ministry of Environment and Forestry, 2011:80)*

4.4.1. Turkey as a Party in Fight with Global Warming and Climate Change

Since Turkey was an OECD member, it was included in both Annex-1 and Annex-2 lists in 1992 when UN Framework Convention on Climate Change was opened for signature. Although Turkey supported purposes and general principles of the convention, it did not become a party to convention until 2004. In the 7th Parties Conference held in Marrakech in 2001, it was decided to "delist Turkey from Annex-2 and to give it a place in Annex-1 in another position different from the Annex-1 countries by recognizing its 'special circumstances'". Upon this decision, Turkey became a party to UNFCCC on the 24th of May 2004 and to Kyoto Protocol on the 26th of August 2009 (Possible Effects of Kyoto Protocol on Turkish Energy Sector, 5).

4.5. A Critical Perspective on Environment Taxes and Carbon Markets

It is possible to criticize effectiveness of environment taxes from many aspects. Possibility of polluting environment as much as affording taxation does not generate a healthy result. In addition, it does not seem to be a fair solution for those who are already low-income and have to use fossil fuels like coals which are supplied much and relatively cheaper.

Considering carbon markets, although emissions trading seems to encourage countries for emission reduction by allowing them for generating revenue through selling emission reduction they achieve more than the set amount, it does not seem that it will eliminate fossil energy dependency because it gives other counties to generate emission more than the limitation.

"Turkey is also in voluntary carbon market with some clean energy production projects, and aims at increasing its share in this market. This is because a company developing clean production techniques will sell its own emission credit to a company polluting environment and avoiding facing heavy costs of it within the scope of Kyoto Protocol Clean Development Mechanism. This will cause purchasing company to continue hazardous production by paying the price for it" (Konak, 2011:154). The fact that developing countries have a chance to purchase pollution they generate instead of adopting industrial production techniques that bring less damage to environment will delay new structural changes in industrialization. Although renewable energy type projects like energy efficiency, solar energy, biogas, geothermal, wind, hydroelectricity, which can make the greatest contribution to sustainable development, are large in number among The Clean Development Mechanism projects, these projects bring about low amount of emission reduction and introduce few credits (Konak, 2011:164).

On the other hand, the fact that carbon markets have turned even environmental issues into an instrument of speculation tarnishes plausibility of solution seeking. That The Czech Republic, The Netherlands, Estonia, Sweden and France declared their national emission data in April 2006 early and it was realized that they generously distributed carbon credits led to speculations in the carbon market (Konak, 2011:163) and carbon prices fell instantly. Therefore, fall in cost of purchasing carbon credits and decrease in profit of selling emission reduction surplus caused companies not to prefer emission reduction.

In short, Kyoto flexibility mechanisms mediate not reduction, but transfer of emission from one place to another.

Another problem the world faces within global climate change is food problem. Turkey has productive soils and a high bio-diversity. Complementary component of making a direct investment in protection of nature is making an investment in biological capacity.

Among ways of increasing productiveness of land are returning distorted lands to their previous conditions, improving land tenures, improving land management, product management and crop productivity. To achieve this, factors such as land tenures of landowners, land ownership problems and lack of infrastructures should be solved (WWF, 2010:94).

Considering the problem and developed solutions together, it is seen that more concrete and realistic solutions are needed in terms of justice of income and environment. Approaches such as making existing fuel sources less hazardous through techniques like filtering and making investment in heat insulated and energy-efficient buildings and transport systems that consume less energy, that is, making production energy-efficient seem to be beneficial solutions at this stage.

Since increase in GDP is not enough alone today, changing consumption habits and raising awareness concerning the fact that resources of our world are limited and gradually decreasing are the primary solutions to be adopted.

5.CONCLUSION AND RECOMMENDATIONS

It is environment which has suffered most in the process of fulfilling unlimited needs through limited resources. The fact that this damage which is "human" related returns again to human to damage him caused seriousness of this problem to be recognized and become a topic focused on by not only marginal groups and scientists but also national and international organizations, heads of states, media and economists. Although nature has self-perpetuation feature, technology and industrialization, which advance at a speed impossible to keep pace with, destroy this ability of nature in the ratio of their own speeds.

Continuing its rapid economic growth, the world has encountered a big problem which is impossible to be compensated and threatens "today" and "future": Global warming and climate change. A new concept appeared in the 1970s in which not only physical capital but also human capital and environment increased their importance: Sustainable development. To develop by meeting the needs of the present without limiting the future generations. Economy, public administration, social policies, civil society, media, national and international organizations should progress shoulder to shoulder in order for sustainable development to be really "sustainable".

Especially multi-national companies shifted their production to developing countries as a result of removal of limitation on international trade. Capital mobility and search for cheap labor also had an impact on this tendency of the companies. These companies concentrating in petrochemical, automotive, electronics, rubber and pharmaceutical sectors that bring the greatest damage to environment started to rapidly pollute these regions which had remained naturally intact until their intervention. Green economy (environmental economics) developed within the framework of sustainable development aims at minimizing the damage to environment at the stages of production, consumption and leaving waste on

nature, and requires use of efficient and more renewable energy resources. While national and international steps taken for environment increase every passing day, they bring along certain responsibilities. Since implementation of these policies arouses fear of missing foreign capital among developing countries that desire to achieve a rapid growth even though they are subjected to industrial waste, these countries cannot properly implement green economy policies. In this case, it is thought that a choice has to be made between environment and economy. However, environmental policies will already show their benefits in the long term. In this context, the most effective solution is adoption of green economy policies aimed at achieving production, growth and economic development without polluting environment or by bringing minimum damage to environment instead of falling into a dilemma and making a choice between giving up production for environment or growing even if it results in damaging the environment.

Environment is a global common property. Sustainability of environment can be achieved only through an international cooperation. Within this framework, the most important international step is Kyoto Protocol, to which Turkey became a party in 2009, and the most prominent financial instrument is carbon tax. Taking into consideration environmental negative externalities, which occur in production and consumption stages, in production and pricing besides this tax and other environmental taxes will be deterrent due to obligation of bearing cost of destroying environment. These taxes should be homogenously imposed on a global scale as much as possible, and rise in prices and costs in the entire world should not negatively affect sectoral and international competition in order for these taxes to fulfill their environmental and financial purposes duly. Governments should regulate exemptions and exceptions without tarnishing the purpose of taxation. Revenues obtained from additional environment taxes should be used for encouraging eco-friendly activities and developing new production techniques. In this sense, progress should be achieved through technology transfers. At this point, social policies including training should be developed, and specialists should be trained and employed in these fields.

In Turkey, environment taxes do not absolutely serve their purposes. There are many answers to the question, "Is it possible to implement Carbon Tax in Turkey?" On the other hand, effect of this taxation on citizens should be taken into consideration besides introduction of an emission reduction. The fact that our economy, in which foreign investments have a big share, does not have the luxury to lag behind international competition in this period makes it probable for industrial segment, which comes first to be affected by carbon tax, to put leverage on government for receiving exemptions and exceptions. In addition, it is possible for carbon tax to negatively affect low-income families considering that they allocate greater part of their incomes to fuel consumption in comparison to high-income families and most of these low-income families use fossil fuels like coals that contain high level of CO2. Natural gas, which emits less carbon than coal, appears to be first alternative for households. In this context, local governments have a great responsibility for carrying out necessary infrastructure works.

Since enterprises in Turkey cannot take part in emission trading as a purchaser until 2012 within the scope of Kyoto Protocol, they can perform sales only in foreign voluntary carbon markets. Important changes will occur in their tax burdens as they will become both purchaser and seller as of 2012

Actors of sustainable development are environment, society and economy. Accordingly, environmental policies to be implemented in accordance with this purpose should be given credit and adopted by society. Therefore, people should be expressly informed especially about financial policies to be implemented, principle of transparency should never be violated, and effectiveness should be achieved between institutions of the sate within an absolute information sharing and cooperation. Public sector, civil society and private sector, that is all segments of the society, should fulfill their part for sustainable development, and they should act in tandem.

REFERENCES

AKKAYA, Ş. (2000). An Instrument Of Limiting Carbon Emissions:Carbon Tax. İ.Ü. Siyasal Bilgiler Fakültesi Dergisi, (23-24).

AYDIN KENT KONSEYİ, Gündem 21 Nedir?http://www.aydinkentkonseyi.org/yerel-gundem-21/gundem-21-nedir/ (accessed: 25.11.2011)

BARDİ, U. (2011). Springerlinkhttp://www.springerlink.com/content/m01181/front-matter.pdf (accessed: 12.10.2011)

BİLGİN, S., ORKUNOĞLU, I. F. (2010). Fiskal Ve Ekstrafiskal Amaçlar Bağlamında 1970'lerden Günümüze Çevre Vergileri. Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, (12\1), 77-108.

BOZKURT, Ö., ERGUN, T. (2008). Kamu Yönetimi Sözlüğü. Ankara: TODAİE.

BÖLGESEL ÇEVRE MERKEZİ REC TÜRKİYE. (2006). Birleşmiş Milletler İklim Değişikliği Çerçeve Sözleşmesi ve Kyoto Protokolü.

ÇELİKKAYA, A. (2011). Avrupa Birliği Üyesi Ülkelerde Çevre Vergisi Reformları ve Türkiye'deki Durumun Değerlendirilmesi. Anadolu Üniversitesi Sosyal Bilimler Dergisi, 11(2), 97-120.

ÇETİN, M. (2006). Teori ve Uygulamada Bölgesel Sürdürülebilir Kalkınma. Celal Bayar Üniversitesi İİBF Dergisi, 7, s. 1-20.

DPT. (2006). Dokuzuncu Kalkınma Planı. Ankara: Resmi Gazete.

DPT. (2011). Dokuzuncu Kalkınma Planı 2012 Yılı Programı. Ankara: DPT.

FULLERTON, D., LEİCESTER, A., SMİTH, S. (2008). Environmental Taxes. National Bureau of Economic Research Working Paper Series, (14197).

GÖKTÜRK, A. (2008). Bugün Gelinen Yerde Kent Konseyleri ve Yerel Gündem 21.http://www.yayed.org.tr/resimler/ekler/2998cf32d552343_ek.pdf?tipi=7&turu=X&sube=0 (accessed: 02.12.2011)

GÜNDOĞAN, E. (2010). Yönetişim:Kavram, Kuram ve Boyutlar. A. ÇUKURÇAYIR, T. EROĞLU, & H. E. UĞUZ içinde, Yönetişim (s. 13-56). Konya: Çizgi Kitabevi.

HALLE, M., NAJAM, A. (2011). International Environmental Governance Reform. Manitoba: The International Institue for Sustainable Development.

HOTUNLUOĞLU, H.,TEKELİ, R. (2007). Karbon Vergisinin Ekonomik Analizi ve Etkileri: Karbon Vergisinin Emisyon Azaltici Etkisi Var mi? T.C. Hacettepe Üniversitesi Sosyoekonomi Dergisi, 070206, (2), 108-126.

IISD. (2008). The Governance of Non-Legal Entities: An exploration into the challenges facing collaborative multistakeholder enterprises that are hosted by institutions, Manitoca: International Institute for Sustainable Development.

IISD a. International Institute for Sustainable Development. http://www.iisd.org/networks/gov/ (accessed: 15.12.2011)

IISD b. International Institute for Sustainable Development. http://www.iisd.org/measure/principles/sd/ (accessed: 09.11.2011)

KALFA, C. (2011). Kamu Yönetimi Disiplininin Gelişimi. Süleyman Demirel Üniversitesi, s. 403-417.

KARAKAYA, E. (2008). Küresel Isınma ve KYOTO Protokolü:İklim Değişikliğinin Bilimsel,Ekonomik ve Politik Analizi. İstanbul: Bağlam Yayıncılık.

KARAKAYA, E. Türkiye İçin Post-Kyoto Müzakerelerine Yönelik Bir Strateji Önerisi. TİSK İŞVEREN DERGİSİ. http://www.tisk.org.tr/isveren_sayfa.asp?yazi_id=2306&id=108 (accessed:18.12.2011)

KOÇ, Y. M., & GARİP, M. (2008). Türkiye ve Avrupada Sürdürülebilir Enerji Ve Çevre İlişkisi (ss 151-160). Sunulan VII. Ulusal Temiz Enerji Sempozyumu, UTES' 2008.

KOÇAK, S. Y. (2010). Avrupa Birliği ve Yönetişim. A. ÇUKURÇAYIR, T. EROĞLU, & H. E. UĞUZ içinde, Yönetişim (s. 465-493). Konya: Çizgi Kitabevi.

KONAK, N. (2011). Küresel İklim Değişikliği, Kyoto Protokolü Esneklik Mekanizmaları, Gönüllü Karbon Piyasası Ve Türkiye: Eleştirel Yaklaşım. Alternatif Politika, Cilt. 3, Sayı. 2, (154-178).

Kyoto Protokolü'nün Türkiye Enerji Sektörüne Muhtemel Etkileri. http://www.petform.org.tr/images/yayinlar/ozel_raporlar/petform_kyoto_protokolu_bilgi_notu.pdf (accessed: 10.12.2011)

MORGENSTERN, R. (1995). Environmental Taxes: Dead or Alive? Resoruces for the Future. http://www.ecnc.org/file_handler/documents/original/view/272/environmental-taxes--dead-or-alivepdf.pdf (accessed: 10.11.2011)

ÖZDEMİR, B. (2009). Küresel Kirlenme Sürdürülebilir Ekonomik Büyüme ve Çevre Vergileri. Maliye Dergisi, (156).

REPETTO, R. C. (1992). Green fees: how a tax shift can work for the environment and the economy. (W. R. Institute, Ed). World Resources Institute.

SÖNMEZOĞLU, F. (1989). Uluslararası Politika ve Dış Politika Analizi. İstanbul: Filiz Kitabevi.

STAMATOVA S., STEURER A. (2011). Environment and Energy. Eurostat.

T.C.BAŞBAKANLIK DEVLET PLANLAMA TEŞKİLATI. (2010). Bin Yıl Kalkınma Planı.

T.C.ÇEVRE VE ORMAN BAKANLIĞI. (2009). Post-2012 Climate Change Negotiations Guidebook TURKEY.

T.C.ÇEVRE VE ORMAN BAKANLIĞI. (2011). Karbon Piyasalarinda Ulusal Deneyim ve GeleceğeBakiş,http://www.google.com.tr/search?q=KARBON+P%C4%B0YASALARINDA+ULUSAL+DENEY%C4%B0M+ve+GELECE%C4%9EE+BAKI%C5%9E&ie=utf-8&oe=utf-8&aq=t&rls=org.mozilla:tr:official&client=firefox-a (accessed: 12.12.2011)

TEKİN A., VURAL İ.Y. (2004). Global Kamusal Malların Finansman Aracı Olarak Global Önerileri. Selçuk Ün. SBE Dergisi 12: 323-335.

The Rio Declaration on Enviroment and Development. (1992). The United Nations Conference on Environment and Development. Rio de Jenerio: United Nations.

TÜRKEŞ, M. (2002). İklim Değişikliği ve Sürdürülebilir Kalkınma Ulusal Değerlendirme Raporu. Ankara: Türkiye Teknoloji Geliştirme Vakfı.

UNED. (2001). Governance for Sustainable Development-WHAT Governance Programmeizations for a Balanced Enviroment Southern Africa Research and Policy Unit, Montreal.

UYSAL, K., ALTAN, Y., AKTEL, M., & LAMBA, M. (2011). Yerel Yönetişim ve Kent. Kent Konseyleri Sempozyumu (s. 13-29). Bursa: Bursa Kent Konseyi.

ÜSTÜNER, Y. (2003). Siyasa Oluşturma Sürecinde Ağ Yönetişimi Kuramı. Amme İdaresi Dergisi, 36(3), s. 49-65.

WORLD RESOURCES INSTİTUTE. (2008). WRI Annual Report 2008 | World Resources Institute. http://www.wri.org/publication/wri-annual-report-2008 (accessed: 10.11.2011)

WWF. (2010). Yaşayan Gezegen Raporu 2010: Biyolojik çeşitlilik, biyolojik kapasite ve kalkınma. http://www.wwf.org.tr/page.php?ID=347 (accessed: 10.11.2011)

YIKMAZ, R. F. (2011). Sürdürülebilir Kalkınmanın Ölçülmesi ve Türkiye İçin Yöntem Geliştirilmesi. Ankara.

YILDIZ, H. (2006). Kirliliğin Önlenmesinde Çevre Vergilerinin Rolü, 21(245), 103-122.