Finance Of Global Goods In Sustainable Development: Applicability Of Global Taxation

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Abstract

Sustainable development is programming of life today and in the future, in such a way to establish a balance between human being and nature and to enable future generations in fulfilling their needs. This concept contains growth and evolution policies in socio-economic, ecologic, political, spatial, cultural dimensions.

There are some important issues in agenda of countries in order to deal with problems such as development, growth, preventing unemployment and inflation. These problems have made themselves evident with the process of globalization particularly during the 1980's. United Nations, OECD, EU and other voluntary institutions felt that they need to implement some guiding and repressive policies in order to ensure that scarce sources to be used efficient in economic development with a skeptical view on future generations' welfare.

In the post-1980 period initiated with the "globalisation phenomenon", the development in informatics, transportation and communication technologies has caused the globe to narrow rapidly and has created an environment in which geographical frontiers among all the countries in the world are transcended and cooperation and trade in economic, social, cultural fields are developed. The process initiated with globalisation has brought some public good and service needs (environment, health, knowledge, peace, security, etc.) that concern all the societies into agenda. As individual countries fail to satisfy the supply and finance of these goods, common cooperation worldwide is needed and hence the concept of "global public good" started to take part in the public finance literature. The first study on the concept, namely "Global Public Goods; International Cooperation in the 21st Century" under the United Nations Development Programme was published in 1999 and later on quite a few studies on the aforementioned concept have been prepared within the bodies of national, international and supra-national institutions, establishments.

This work provides an examination of studies on application of 'global tax' as a fiscal precaution taking account of national, international and supra-national effects the in relation between global public goods and sustainable growth.

Keywords: Sustainable Development, Globalization, Public Good, Global Public Good, Tax.

1.INTRODUCTION

As a consequence of globalization, the impact of which is observed all over the world since the last quarter of the 20th century, and today where new world order rules; the world shrank due to easier circulation of goods, capital and people thanks to the rapid development in transportation-information-communication technologies, economical relations spread to all countries and it has become obligatory to restructure economy policies on world scale. As a natural result of these developments, a new concept called Global Public Goods has emerged recently in the literature in addition to the issue of public goods and their presentation, which is a major issue of public economy. An intensive concern was shown about the description of Global Public Goods, their characteristics, content, supply and financing as well as its limits on national, international and supranational platforms. The interest in this concept was triggered with the publication of United Nations Development Programme (UNDP) named "Global Public Goods – International Cooperation in 21st Century" in 1999. Since then, many national, international, supranational institutions and corporations have made enormous effort to illuminate and refine the concept.

This issue discussed under the title of Global Public Goods has brought forward many problems and concerns. What the global public goods are, how these will be produced and financed and which institutions and structures on global scale will present them are among these problems and concerns. Global Public Goods is not restricted only with the framework of finance or public economy in terms of its description, quality and impacts, but it should also be discussed with respect to politics, social and legal aspects. Global Public Goods interests many countries or region or all people on global scale and it also surpasses a single discipline by exceeding the borders or power of nation states in terms of its effects.

2.CONCEPT AND CHARACTERISTICS OF GLOBAL PUBLIC GOODS

Globalization process has made socio-economic, financial and political phenomena such as the use and distribution of natural resources, poverty, dissemination of technology, creation of healthy living spaces, elimination of education, health and environmental problems, development, peace, security, maintenance of stability and transition to democracy etc., which are particularly the problems of underdeveloped or developing countries the common problem of all nations. Such goods and services affect the entire world with externalities in local, national, regional, international arena in public terms. Issues such as the presentation of such goods called Global Public Goods with respect to public finance in a qualified manner, who will present these, determination of their quantity, financing method constitute an important problem. Impacts emerging due to the presentation of Global Public Goods or failure in doing so can be reflected on a community or nation on micro level or on other countries, regions and the world along with the country on macro level; these impacts may also be transferred on to next generations (Binger, 2003:4).

With globalization, it has become necessary to have an international stand point to the understanding of many public goods and services considered at national level and national governments were obliged to act at national, international and supranational levels in determining their policies. Global Public Goods interests not only an individual or a country, but all communities, humanity and next generations worldwide due to the consequent externalities (S. Deneulin and N. Townsend, 2006:4).

Basic criteria determining the nature of publicity of goods and services according to the public finance literature are its indivisible benefits, absence of any rivals, incapability of pricing, addressing to the entire nation, being open to common use and different from individual needs, being determined by political decision making mechanism, its huge quantity, nonexclusive benefits and lack of competition in its consumption etc. For goods or services to be considered Global Public Goods, these must exceed geographical borders, their externalities (benefit/cost) must spread all over the world, their production and consumption must be observed all over the world, these must render global cooperation obligatory with their unilateral/multi-directional structure and be a natural result of the critical links between countries and nations and be a complement of national public goods in addition to their public goods and services characteristics (Binger, 2003:6-9). Similar statements are included in the descriptions of UNDP and World Bank.

As per Global Public Goods, financing resources are not collected under a general budget and then distributed just like national public goods, but they are used as resources allocated for each service on the contrary. Actors in Global Public Goods are consisted of various groups along with taxpayers and states. Externality impact is the most significant feature of Global Public Goods; basic problem in issues particularly such as peace, environment and health is the adverse occurrence of externalities spreading beyond borders (Kirmanoğlu, 2006:32). Given the foregoing characteristics, negative externalities can be mitigated and appropriate financing resources can be found for Global Public Goods through multilateral agreements. Fair agreement process is of great significance in terms of justice in the presentation of Global Public Goods (Albin, 2002:2 quoted by Kirmanoğlu vd. 2006:32).

Main goods accepted as Global Public Goods in literature are as follows (te Velde vd. 2002:153-154 aktaran Kirmanoğlu vd. 2006:50): “health” (supervision of epidemic illnesses, HIV/AIDS), “peace and security” (post-war restructuring, re-integration, supervision of narcotics), “information” (free information flow, statistical capacity structuring, agricultural researches, technological R&D, culture and entertainment, institutes of research and science), “environment” (river improvement, waste management, energy training, energy resources, forestry policy, forest improvement, fishery policy, environment research, water resources policy, bio-diversity, protection of water resources, environment training, maintenance of protected areas, improvement of fishery, environment policy, protection from floods, biosphere protection).

Except economical areas, open trading system, unrestricted use of seas, property rights, international money or fixed exchange rate, weight and measure of which has been standardized, monetary and financial stability, disarmament, space researches, weather forecasts, observation stations, world court, global warming, scientific researches and results, prevention of drug habits, international works in the field of human rights and freedoms etc. are related to the Global Public Goods (Kindleberger, 1986 quoted by Akyol, Ulutürk, 2006, s.262).

Global Public Goods are classified according to the criteria of: a) separation of traditional-new, b) total presentation technologies, c) being focused on country, person or generation d) purpose – tool e) being directly related to production or consumption of the goods produced f) quality of the goods g) publicity of goods and sphere of influence h) sectors i) type of the benefit derived j) type of the publicity (Başaran, http://dergi.sayistay.gov.tr).

3.RELATION BETWEEN SUSTAINABLE DEVELOPMENT AND GLOBAL PUBLIC GOODS

With the sustainable development approach widely accepted since 1990s in the international arena, solutions based on the understanding of not harming the satisfaction of the needs of next generation while satisfying the needs of people today have been adopted (Dulupçu, 2000:47). Thanks to the policies aimed for sustainable development, it is planned to improve of current and future life standards by ensuring that the needs of next generations are met and countries are developed without exhausting natural resources via setting up a balance between the human and the nature. Sustainable development policies transform socio-economic, ecological, political, spatial and cultural developments and changes into action. Among the issues required to be solved by the states in the name of sustainable development, issues such as development, growth, prevention of unemployment and fight against inflation can be enumerated. UN in the lead and WB, OECD, EU and other voluntary institutions tend to apply guiding, supporting or forcing policies on world countries in order to use scarce resources efficiently in realizing economic development on the grounds that the welfare of next generations may be harmed.

Due to the mitigating effects on negative externalities in developing countries of many Global Public Goods and services utilized for purposes of development, developed countries will also derive benefits in return for their supports, which verifies the principle of win-win creating a two-way impact. In case of terrorism, legal issues, patent rights issues, epidemics, difficulties in foreign exchange transfers, infrastructure deficiencies, transportation problems, difficulties in access to technology and information and weakness of democracy culture which are deemed threats to the sustainable development, the development processes of developing countries are also adversely affected (Gardiner and Goulven, 2002, http://www.worldsummit2002.org). In this context, the developing countries must solve their basic problems so that the Global Public Goods can be useful (or global public losses can be eliminated) (Kirmanoğlu vd. 2006:34). Furthermore, efficient presentation of Global Public Goods is feasible through solid financial resources, international legal, political and economic agreements and cooperation as well as the success of the approach related to such goods and services. Another point of departure in Global Public Goods financing is the utilization of the Global Public Goods due to their significance in maintaining economic and social development and preventing poverty. Within this framework, Global Public Goods are considered within particularly the area of activity of countries and corporations providing development support to underdeveloped countries as an instrument of development and growth policies (Anand, 2002, s.1-5).

It is true that even though the Global Public Goods are distributed equally to all countries, their benefits are not at the same levels in each country. This situation is directly relevant with the developmental level of that country; while the countries with high development levels derive more benefits from certain public goods, the countries with low development levels will not gain sufficient benefits from the same public goods of the same quantity (Binger, 2003:5). For this reason, development supports hold a major position in financing Global Public Goods. Particularly in the event of external costs directly expanding from underdeveloped countries to developed countries, development aids to these countries become more significant (Kirmanoğlu vd, 2007:133). One pillar of the development aids is the donor country or international corporation providing the aid while the other pillar is developing countries.

Developing countries aim to compensate their market failures by increasing production and consumption of the Global Public Goods; because market failures are heavy in these countries and create deeper impacts on the economy. Furthermore, limited number and inadequacy of current political, legal, corporate and financial arrangements created Global Public Goods. Undoubtedly, Global Public Goods encourage political commitments in the improvement of development aids (such as ODA) and indicates universal benefits of Global Public Goods (Binger, 2003:7).

4.METHODS OF FINANCING IN THE PRESENTATION OF GLOBAL PUBLIC GOODS

Financing is the leading problem encountered in the presentation of Global Public Goods. Economists such as Kaul and Sandler emphasized the necessity of producing Global Public Goods and searching for new resources by transferring the concept of national public goods to the global arena (Kaul, Grunberg and Stern, 1999:450). Special resources, public resources and cooperation mechanisms at various levels are constructed as financing tools of Global Public Goods; the method the most commonly discussed on international platforms is international taxation. In the determination of financing method widely used for Global Public Goods, its impacts in terms of benefit/cost or producer/consumer relation are also taken into consideration. For consumers, assembly taxes, user taxes, fees and taxation, market creation and reinforcement are at issue while for producers, the issues of production with private resources, financing through public resources (national and international) – partnership – cooperation and voluntary participations and private sector resources emerge (Binger, 2003:15).

Free rider problem emerges in Global Public Goods just like national public goods. On the other hand, although the state can create resources as a compulsive power particularly with taxation to finance national public goods, there are no such state and compulsive power on global scale. This financial problem is tried to be solved with international agreements, cooperation and voluntary participation particularly in the services where it is applicable to set standards within the context of global administration without a global state. Moreover, distribution and participation of benefits and costs of Global Public Goods among the countries poses a major problem (Güler, 2011:248).

Since the Global Public Goods are generally produced by global public institutions, their financing is also provided by international financial institutions. Non-Governmental Organizations play a key role in the realization of global objectives and are complementary parts of international institutions. They are a corrective and balancing actor influencing public policy processes, despite not being the main factor in eliminating market failures (Kaul, 2001:599).

The resources created to finance Global Public Goods remain restricted with the organizations held by international institutions and the aids they gather to a great extent. The biggest supporters of financing Global Public Goods are IMF and WB. Particularly WB pioneers many global activities. Along with major supports of WB International Development Association in this issue, north countries also provide financial support with many global programs; they even transfer funds more than the support of the Association in figures. Furthermore, there are other financial aids given by UN and WB (World Bank, 2004 aktaran Susam, 295-296).

In financing Global Public Goods, a lot of supranational and other corporations and institutions make efforts to expand financing opportunities through global taxes and similar mechanisms. For example, International Finance Facility (IFF) aims to mobilize private sector investments in order to accelerate new vaccine production and decrease vaccine costs. Voluntary aids come from individuals, civil organizations and private foundations. Rockefeller Foundation, Gates Foundation, Oxfam, CARE, Greenpeace, Shell, British Petrol can be enumerated among these foundations. Furthermore, musicians such as Elton John and Bono contribute to the financing of Global Public Goods (Arslan, 2007:137).

While World Health Organization deals with health issues which may affect the world and NATO takes care of security problems, official development assistances (ODA9) are tried to be obtained from DAC10 member countries and some international institutions together with globalization. Official development assistances to developing countries directly come from developed countries, developed countries under the scope of ODA and directly from international institutions and international institutions under the scope of ODA (a part of these funds is from DAC countries again). Furthermore, a part of ODA funds is used for purposes of borrowing (Kirmanoğlu vd, 2006:35).

Contributions made are distributed according to the income groups and geographical features of the countries. Official aids which are obtained from DAC countries and international institutions and set aside for Global Public Goods have significantly increased as per years. Funds set aside from DAC countries and international institutions for Global Public Goods have been intensively aimed for peace and security, environment, health and information since 2012. The financing provided by ODA making official contributions increased to $ 133,5 in 2011 (OECD (1), http://www.oecd.org). Increase in this contribution created satisfaction in 2011 and was considered promising in the name of developing new global strategies. Main objectives are to develop dialogues among DAC member countries, to ensure participation of non-member countries and apply annual work plans (OECD (2), http://www.oecd.org).

5. GLOBAL TAX SUGGESTIONS AS FINANCING TOOLS FOR GLOBAL PUBLIC GOODS

As a traditional tool, “taxation” is among the most appropriate financing tools for internalizing the externalities which is valid for Global Public Goods as well as national public goods. However, the lack of a central authority for imposing, applying, collecting and distributing global taxes is the most important problem relating to this taxation.

If we look into the chronological order of global taxation suggestions which are considered as financing resources of the activities to be conducted in order to eliminate international problems such as economic stagnation, war etc.; global taxation was proposed by J.M. Keynes, A. Marshall and J. Meade before the Second World War, by the UN in 1972 in order to prevent global financial instability and environmental problems occurred at the beginning of 1970s and by J. Tobin in 1972 in order to impose taxation on the monetary transactions exceeding the limits on global scale so that global financial instability is prevented. Rome Club discussed over global taxes as a financing instrument of international organizations and Brandt Commission published a report reviewing many global tax suggestions in 1980. R.

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9 ODA (Official Development Assistance) is an official development assistance category (central and local governments or their representatives). At least 25% of these aids is donation while the remaining part is in the form of low-rate interest loan.

10 DAC (Development Assistance Committee) Countries: Australia, Austria, Belgium, Denmark, Canada, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxemburg, Netherlands, New Zeland, Norway, Portugal, Spain, Sweden, Switzerland, UK, USA, International Corporations: World Bank (WB): IDA, Regional Development Banks (RDB): AfDF, AsDF, United Nations (UN): UNDP, UNICEF, UNAIDS, UNFPA EC, ECF

Mendez made a set of global tax offers in his book International Public Finance in 1992 (Paul and Wahlberg, 2002:2 quoted by Tekin and Vural, 2004:327). First objective of global taxation is to create additional income source in maintaining financial developments of underdeveloped and developing countries and the second is to ensure financing of Global Public Goods. Key understanding in global tax suggestions is to create a healthier, more secure and stable world order and ensure the participation of those benefitting from this process in service costs by paying taxes in return for these benefits (Tekin and Vural, 2004:327)Similar.

Global taxes stipulated for financing Global Public Goods can be classified in three groups: direct taxation of the country consisting the basis of a problem related to Global Public Goods, “polluter pays or those who let pollution pay”, therefore “internalization of externalities on nation-state level”; the second is the application of “global trading tax” which is the taxation of international trade and the third is the taxation of the use of “global common goods”.

First suggestion relating to the taxation of nation-states was made in the 2nd United Nations Conference on Trade and Development (UNCTAD) held in New Delphi. Accordingly, developed countries were requested to transfer 1% of their gross national products to finance the development of developing countries, but this suggestion could not be applied since developed countries objected. The subject of the second suggestion is the taxation of trade. Considering that world trade is realized between overseas countries at a level of 95%,the suggestion of taxing global trade in return for utilizing oceans which is a type of global common goods was made by Brandt Commission in 1980 as a component of “new international economic order” concept. Global trade tax not aiming at deterring the activity taxed particularly like the taxation of electronic trade intends to provide financial resource with global institutions aspiring to prevent global peace and welfare. Tax base is foreseen to be consisted of all tangible and intangible goods and services exceeding limits. The third tax suggestion is to collect tax in return for utilizing Global Public Goods, the benefit/cost of which affects the whole world. “Park fee” to be obtained from passenger and cargo vessels navigating over the oceans, taxation of multinational company profits and taxation of international advertisements, additions to admission fees of international and national parks, international highway fees and tourism activities’ fees can be enumerated as example. Thus, the resources to be derived from tax applications preventing the wrong and excessive use and entire consumption of Global Public Goods can be used as an important financing tool in the solution of poor countries’ problems and global management system problems (Tekin and Vural, 2004:328).

The purpose in global taxation is not only to derive income in order to be banning, punishing and deterrent, but also to manage corrective, regulative or incentive policies in the world economy with national and international agreements. However, it is a fact that there are important problems and doubts as to whom shall be authorized and responsible for global taxation, collection, allocation and monitoring of the tax or management of the relevant income. Who shall participate in coordination and representation among the countries at which rate or have a say constitutes a major issue. Serious problems emerge in application in this regard.

The types and applicability of taxes which are/will be applied on national level and can comply with global taxation at the same time are considered below.

5.1. Environmental Taxes

Cost recovery user fees in 1960s and 1970s and fees and obligations allocated for certain purposes since the second half of 1970s were introduced for environment purposes. Incentives also began to be applied together with environmental taxes in 1980s and 1990s. Since the early 2000, the encouragement of “good” actions slipped into background with the impact of environmental problems on global level; “green tax reforms” aimed at taxing “bad” actions were brought forward instead (Özdemir, 2009:11).

5.1.1. Environment Tax

Environment taxes are levied as harmful substance emission (carbon or emission) over the amount of pollution calculated directly. If it is hard to determine, it is collected at the point of use, in order words while the product is produced, consumed or if it becomes a waste, the tax is collected as product tax at the source it causes pollution taking basis the polluting substance within. Environment taxes are classified as follows:

- For purposes of mitigating waste and emission; carbon and energy taxes, water pollution taxes, solid waste taxes, product taxes (fertilizer and insecticide taxes)

- For purposes of recovery; waste batteries and accumulator taxes, packing taxes

- For the protection of natural resources; water removal taxes, hunting and fishing taxes

- Other taxes; ecological taxes on tourism, green building incentives, commotion taxes, real estate taxes (Özdemir, 2009:24).

Energy taxes are the most important environment taxes and it makes up 75% of the total environment tax income and 5% of the total tax income (including social security premiums). These taxes are imposed on the consumption of energy products such as fuel, diesel oil, natural gas, coal and electricity. Transportation taxes collected due to motor vehicles in AB-27 make up an average 23,2% of environment taxes and 1,5% of the total tax income. Pollution taxes are collected over water and any emissions creating pollution as well as solid wastes and commotion. Natural resource taxes are also imposed on rental fees of the lands from where precious materials and petroleum is mined. Pollution taxes and resource taxes make a marginal contribution to the income and make up only 1,5-2% of total environment taxes (Özdemir, 2009:25-26). Emphasizing the importance of real state and land taxes for protection of the environment, Hartzok drew attention to the fact that the tax arrangements should be encouraging, of low and equal levels. This necessity is obligatory for a good democratic administration in finance policy (Hartzok, http://www.earthrights.net).

EU countries have considered the protection from negative effects of increases in input costs, mainly energy, as the leading motive of green taxes in the last decade and put their reformist approaches into application. Some of the tax types relating to environment in AB countries: motor vehicle taxes (from registry, circulation or sale), motor vehicles fuel taxes, waste tax, alcoholic beverages additional tax, soft drinks additional taxes, soft drinks box tax, chemical drugs tax, agricultural inputs tax, energy tax, air and water pollution tax, battery, accumulator, package materials tax, vehicle tire tax, petroleum waste tax, petroleum pollution control duty (Özdemir, 2009:14-16).

On international level for purposes of protecting the environment, Kyoto Protocol made it obligatory for OECD and Transition Countries to reduce greenhouse gas emissions down to the predetermined levels since 2000. Developed countries committed to reduce their gas emission objectives they set for their own countries for 6 basic gas types11 by 5% at least during the period of 2008-2012. However, since these countries did not go for a suspension in

11 Carbon dioxite, metane and nitrogen dioxide are among the most important.

their gradually increasing consumption, the decrease which was projected as 5% in the beginning requires around 20% rate today. Although EU and member countries approved Kyoto Protocol12 in 2002, its enforcement was in February 2005 after the signature of Russia (Özdemir, 2009:5).

Through these taxes, the costs caused by actions and transactions harming Global Public Goods are being internalized by being added to the prices of these goods and services. Thus, demand for these goods and services, costs of which are increasing, leads economic bodies to consume less and avoid environment polluting activities. Furthermore, income sources which can be directly used in financing Global Public Goods can be created by ensuring that the producers may resort to more environment friendly production methods by increasing the cost of environment polluting activities. Since global carbon tax may impose heavy burdens particularly on groups with low income levels in application, it is adopted by local tax authorities that its use within sales taxes such as VAT may be more appropriate. In this manner, these taxes can be transformed into broad-based and low cost resources with a small additional rate.

Despite its benefits, income from environment taxes have not showed a significant increase mainly in former EU member states in recent years. For example, the income derived from this source, mainly derived from energy, in 2005 emerged as 2.6% of Gross Domestic Product and 6,6% of the total tax income as weighted average in EU-27 member countries. On the other hand, increasing popularity of non-financial instruments such as emission trade and higher price expectations as compared to 1990s in world oil prices decreased the attractiveness of imposing additional environment taxes, at least in energy sector (Özdemir, 2009:13).

5.1.2. Fuel Taxes

This type of tax extensively affects household due to heating, luminance and use in kitchens as well as transportation and energy sector. Primary objective in fuel taxes is to derive income. Fuel taxes are significant income sources in both developed and developing countries to such an extent that fuel taxes for most of the European countries rank the third among the budget income (Metschles, 2001:65-66 quoted by Tekin and Vural, 2004:328).

It is recommended to impose global fuel tax on exceeding transportation activities in order to mitigate adverse externalities13 created by the fuels. It is foreseen to collect aircraft fuels or gas taxes, passenger and cargo ticket taxes and utilization taxes depending on aircraft emissions under the name of Aviation Tax. Such taxes can be collected by sea - airline transportation companies over the airline tickets or freight expenses (Binger, 2003:16). Although the imposition of flight ticket and cargo has an application facility as a more

12 Out of 195, 174 countries and EU signed and/or attested Kyoto Protocol and put into force. Only USA, China and India which make the highest green gas emissions (23%) in the World did not approve the Protocol again.

13 As at 1992, flight emissions correspond to 3% of total radiation created by human activities; since aerospace sector shows a rapid development, this rate is expected to increase by 3% each year until 2015. Hydrocarbons, nitrates and similar contaminants released to the atmosphere during the flights poses a significant threat to the atmosphere (Binger, 2003:16).

favorable option in terms of international law and applicability, it is possible to tax railways, international transit highways, highways and sea transport. For example, an application similar to green tax is made in all national flights with an alternative of Norway railway and international flights from Norway (Bleijenberg vd, 1998 quoted by Tekin and Vural, 2004:328).

Even though the rapid growth of sea and airline sectors and high levels of business revenue has a capacity to ensure that significant levels of income are obtained with this tax, USA in the lead, UK and Australia prevented the wide application of global fuel tax in the EU since they were rivals with each other in this issue during the world aviation fuel summit held in 1997 (Binger, 2003:16).

5.1.3. Virgin Material Taxes

Virgin material tax has been proposed to eliminate market failures emerging due to excessive use of materials polluting the environment (Bruvoll, 1998:16 quoted by Tekin and Vural, 2004:328). Such taxes to be imposed on plastics and paper raw materials will affect consumption by changing the production structure and therefore will have an adverse impact on the environment. Nothing can be consumed in real terms in nature; all materials are actually transformed into others. All materials processed by being mined from the nature will more or less turn into waste in future. Even if organic materials which are less influential in polluting the environment (plastics, papers etc.) are completely consumed, wastes emerging from these materials will be conveyed to next generations. On the other hand, tax policies and regulations show tolerance to raw materials in order to maintain financial growth and competitive power. This situation prevents the development of renewable materials and environment friendly technologies and causes excessive use of these materials. Polluter both incurs a material tax designated according to the principle of “the polluter pays” and all costs of the material used and is encouraged to mitigate the pollution he causes. According to Bruvoll (1998:28), a material tax of 15% to be levied on plastics and paper raw materials will lead to a decrease of 11% in the use of these materials and force wastes-emissions down to a great extent. On the other hand, despite having a significant income potential and positive environment impacts, this tax has a limited scope of application due to its negative impacts on national product and competition power (Tekin and Vural, 2004:330-331).

5.2. Taxes Relating to Information and Information Sharing

5.2.1. E-mail- Internet and Cyber Tax

With ever-growing Internet use all over the world, it is possible to derive significant levels of income, for example 1 cent tax levy for each 100 e-mails. Considering the contemporary increase in the number of internet users, it is possible to obtain a very important resource. Document sending of and above 10 Kbyte may also be an important source of income within this framework. The income to be derived in this manner can be used to combat crimes over internet or other possible negative impacts as well as to spread information (Binger, 2003:18). Cyber taxes will provide consequent cash audit opportunity with governments and mitigate work load on the tax administration (Woehlke, 2000, http://www.nysscpa.org). Since these taxes may constitute barriers before research, development and sharing information, it is necessary to encourage technology transfers. However, secure access in internet uses and prevention of having access to bad information are among the basic issues (Gardiner ve G., 2002, http://www.worldsummit2002.org).

5.2.2. Electronic Trade Tax

Electronic trade covers activities of electronic transmission of data, information, products and services through communication lines such as internet. Such a tax is based on the taxation of data, information, products and services transmitted through virtual networks in the new economy where gradually increasing welfare and commercial value is created through intangible products, systems and global networks. Main purpose of these taxes is not to punish internet use, but to derive the resource required to decrease digital division present between North and South. It is also important to ensure efficient data and information flow by preventing unnecessary occupation of virtual networks except financial purposes (UNDP, 1999 quoted by Tekin and Vural, 2004:333).

5.3. Taxes Aimed to Ensure Peace and Security

International arms trade is considered among the sources recommended for global tax. Particularly since the arms trade tax has been perceived as a raise in order to realize disarmament, it has been targeted to decrease this trade level. It is aimed to collect the income to be derived from this tax in a fund and use for disarmament rather than being used only to decrease arm purchase and sale or to benefit from this income as a finance resource in the development processes of developing countries. This taxation idea was mentioned firstly in Brandt Commission report in 1980 and then in the early 1990s. Non-Governmental Organizations also suggested that small arm traders should also be subjected to this tax in order to compensate the losses emerging from the use of small guns and the tax should also cover the arrangements to maintain that third persons who may be harmed are insured.

Arms trade tax implies the reduction of arms trade and relevant production, less armament, less import and therefore less cost of war. Through this tax, resources may be created to compensate the losses that humans and the environment may be subject to due to wars. With respect to participation in tax levy, arm sellers and producers have also been held responsible for the losses emerging from the use of arms as much as the arm purchaser in accordance with the causality principle and they have been obliged to feed this source based on the rationale of “the polluter pays”. Preliminarily the problems in the determination of arms trade volume and price are among the factors to prevent the application of arms trade tax. These difficulties are performance of international arms trade through illegal methods, black market – stolen arms sale and the possibility of executing international secret arms sale agreements. Mostly military and civil products are stated in UN and IMF foreign trade statistics related to the arms trade (Brzoska, 2001, http://unpan1.un.org). It has been considered that since an average revenue of $25-30 billion per year was earned in the early 2000s; if this tax rate was 5%, nearly $1-1,5 billion would be earned as income (McMahon, 2001:11 Tekin and Vural, 2004:328).

5.4. Other Taxes for Financing Global Public Goods

5.4.1. Foreign Exchange Transactions Tax

It is stipulated to collect a participation fee from the foreign exchange circulation in international markets and foreign exchange transactions emerging from arbitrage, trade and speculation activities realized by all world central banks. In the event that this rate is 1-2%, it is stated that an income of $300 billion would be gained assuming that the total foreign exchange transactions realized in 2000s amounted to $300 trillion. With the income to be derived from the foreign exchange circulation of those benefitting from the realization of transactions such as international trade, travel, long term investment etc., it is possible to prevent speculative actions and to eliminate financial instabilities. However, as per the applicability of such a global tax, since foreign exchange transactions are managed by certain centers all over the world (USA, 75% of the global money in Japan and around 15% in Sweden, Hong Kong and Singapore), the issue of whether such countries would bear the burden arises. Additional costs to be levied on the persons due to the non-financial transfers, whom will be given how much of the shares relating to the collection of these taxes are also some other important problems. Global traders may seek various methods to avoid from being subject to tax. For example developments such as tax heavens, transfer of illicit money, smuggling of foreign exchange, informal FX transfer systems etc. may lead to the violation of world trade rules (Binger, 2003:17-18).

5.4.2. World Trade Tax

As a result of the fact that all products in the world trade are transported over the seas at the rate of 95%, "World Trade Tax" was recommended to set and protect international economic order in Brandt Commission in 1980. In the event that a 5% tax is collected over the world trade expected to occur as at 2001, nearly $58,9 billion was foreseen to be derived as income. Inıtially, it was expected to obtain a big contribution in the international trade particularly in OECD countries in order to strengthen underdeveloped and developing countries and eliminate current adversities in the world trade.

According to the announcement made by WTO in 2003, total world trade as at 2002 was nearly $6,4 trillion; therefore it is possible to earn around $30 million income in financing global public goods with a small rate (0,05) under the name of "Global Trade Tax" over these trade activities. On the other hand, assuming that the shrinkage to emerge in the world trade will be 5%, it is widely thought that such a tax application will decrease the trade of the developing countries and adversely affect their growth (Tekin and Vural, 2004:327).

5.4.3. Tobin Tax

Recommendations made to mitigate the problems that the globalization created in terms of states and social classes have focused on the taxation of these movements at least against the limitation of the capital movements. J. Tobin suggested levying a transaction tax at a high rate over the international capital movements in order to decrease the possibility of earning profit in short term or overnight speculations by increasing speculation costs. The suggestion required the collection of a tax with a rate varying between 0.1% - 0.5% over the Money to be converted from one foreign exchange to another foreign exchange. Tax will be collected over the rate to be applied on the transaction amount in purchase and sale. It was initially considered to apply this tax only in the current market, but then it was stated that the application should cover all other markets. The tax must be collected at the same rate in all countries over the world and over all transactions in any foreign exchange realized in different countries. The purpose of the tax is to decrease short term speculative transactions and to ensure that the efficiencies of the governments are increased in their macro-economic and monetary policies and tax burden is allocated equally. Canada has been the first country to approve Tobin Tax in 1999 by indicating that Tobin Tax should be applied as an international tax (Saraçoğlu and Şahan, 2004:74). There are two main reasons for the failure of Tobin Tax in becoming widespread as recommended. Firstly the countries abstaining from temporary adverse effects to emerge with the application of the tax avoid from taking the lead or initiatives and secondly those carrying out the transactions to be taxed may avoid the tax by creating new instruments not subject to tax or by using tax heavens (Binger, 2003:18).

6.CONCLUSION

Globalization has presented worldwide opportunities to the individuals, firms and countries on the one hand while creating new threats and problems at the same time on the other hand. It has become necessary to fortify, update and change current market mechanism in order to eliminate some threats or to benefit from the opportunities emerging and having a universal value. In this process, new approaches and policies have been focused on in the public finance.

Taxation is one of the most widely discussed issues among the tools foreseen to be used in financing Global Public Goods. For the execution of global taxation applications, it is necessary to benefit from supranational organization institutions to be newly set up with the attachments to be inserted in the internal legislation of nation states or new arrangements to be made. As per the success of such attempts, some questions and problems emerge such as legal, political, administrative, social and economic infrastructure inadequacies of the countries, creation of the administration relating to the levy, collection and distribution of the taxes, determination and audit of authorities and responsibilities. Whether or not nation states are willing to transfer their taxation authority based on their sovereignty to other institutions and organizations or the doubts to emerge on their independence as well as the lack of an authority such as state before the taxpayers affect the success in taxation. Furthermore, it is necessary to determine the need of the countries for Global Public Goods or the level of sincerity about the concerns for next generations, whether the countries will create (and abuse) an impact over other countries by taking advantage of their the development difference, who can be represented in what numbers in the institutions or organizations to be created; the truth of new financial incentives, the criteria taken into consideration in setting global priorities and which focal points will affect the international community.

For global taxation purposes, efforts should be made to mobilize power or powers on nation state level to ensure that nation states participate in the system and the system works efficiently, then to create global power or powers to commence global tax application and to transfer the sovereignty of nation states to this organization. This approach is an important rationale for strong countries to oppose global tax applications. The solution of this problem is to ensure that some global taxes having a potential to be applied on nation state level are applied and the income derived is transferred to the production of Global Public Goods at first stage and then a part of this income is transferred to the global authority, which will cover a transition period. Technical problems to emerge during the application of the taxes may be solved in some manner; however, the elimination of political barriers which is the fundamental problem in the application of these taxes depends on the establishment of more transparent, willing to participate and democratic global management institutions on global scale and presentation of common solutions to the global problems respecting to the principle of equality, human rights and the principle of state of law.

General opinion about the application of global tax until today is that the possibility of their application is very low. Global Public Goods financing is maintained in a cooperative manner by international institutions and voluntary organizations rather than the global taxes discussed in theory. Actually, if each country fulfills its obligations in due manner, it can be discussed if there is a need for these applications. As it is observed in practice, some countries show sincerity about the issue and make necessary efforts (such as the EU or Northern European countries), countries mainly USA, China and India which are leading world economy show their insincerity concerning the issue by objecting to sign Kyoto Protocol.

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