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The impact of the WTO agreement on some environmental indicators in Egypt

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Abstract

The environmental impacts of the WTO agreement implementation represented in the development gap between the developed and developing states due to eliminating the several customs barriers and getting rid of the amount Quota system and the inclusion of the environmental standard as a new standard of the world trade. The social and environmental standards and conditions represented one of the main problems facing the developing states exports to the developed states and their world competitiveness ability, particularly after the increase of implementing these measures by the developed states. The research aims to identify the content of the environmental dichotomy in line with the WTO and the subsequent impacts of including this dichotomy in the world trade. It also aims to indicate the most important requirements and world environmental standards and their impacts on restricting the freedom of services and goods inflow into the world markets. It also aims to make a quantitative assessment of the impact of the WTO agreement implementation on some environmental indicators in Egypt such as agriculture, energy and electricity. Finally, it introduces suggestions of the necessary policies to curb these impacts ahead.

Keywords: Egypt - WTO - environmental indicators-environmental standards and requirements.

Introduction

The ideas of domestic market protection and curbing of services and goods inflow has prevailed for a long time in line of the WTO and GATT formerly. The reinforcement of this idea was embodied in adopting several policies and procedures aimed to prevent goods inflow into the markets. The most important of these procedures systems and policies is the implementation of the amount allocation system within the GATT agreement items so as a certain states trade volume will not exceed it within a certain period of time (a year). This system was one of the most important obstacles and problems that impeded services and goods inflow into the world markets (Ahmed Moghawry Diab, Lamiaa Fakhry Dakhli, 2001) ^[1]. In addition, the GATT treaties did not include certain measures or accords on the environmental issues and environmental levels or standards for trade. There were no specific rules for distinction among the states exports which adopt or do not adopt the sustainable development policies of their various natural resources management. Therefore, these standards remain ones of the reasons behind the increase of disputes and environmental related trade issues among the developed and developing states (Galal Al-Malah, 1999) ^[4].

In the light of eliminating the amount allocation system, several sessions of WTO negotiations were convened. Uruguay session concluded the elimination of this system in the beginning of 2005 and there was no longer a conditional maximum trade size among the states in line with world trade liberalization and markets openness (Safwat Abdelssalam Awadallah, 1999) ^[4]. The developed states must look for certain other barriers and measures to protect the domestic markets and provide further protection for their products and domestic markets through measures related to non-customs obstacles. This included the implementation of some states of the anti-dumping measures to curb goods inflow into their markets. These social and environmental standards and conditions represented one of the main problems facing the developing states exports to the developed states and their world competitiveness ability, particularly after the increase of implementing these measures by the developed states (Al-Sayyed Ahmed Abdelkhalik, 1994) ^[2].

Problem of the research

The research problem dwells on the subsequent impacts of the WTO agreement implementation represented in the development gap between the developed and developing states due to eliminating the several customs barriers and getting rid of the amount allocation system and the inclusion of the environmental standard as a new standard of the world trade.

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Research method

The study has relied on the descriptive and quantitative technique in realizing the research aim. It has also relied on some statistical analytical instruments to analyze the impact of WTO agreement implementation on some environmental indicators in Egypt (agriculture, energy and electricity) through relying on the World Resources Institute data. A comparison was conducted between six past and future years for the agreement implementation (1989-1994) and (2007-2012). These are the years for which published data are available.

Research hypothesis

The research hypothesis is the WTO agreement implementation negatively affects the Egyptian environment due to the increase of the natural resources waste and the high environmental contamination rate.

Research aim

The research aims to identify the content of the environmental dichotomy in line with the WTO and the subsequent impacts of including this dichotomy in the world trade. It also aims to indicate the most important requirements and world environmental standards and their impacts on restricting the freedom of services and goods inflow into the world markets. It also aims to make a quantitative assessment of the impact of the WTO agreement implementation on some environmental indicators in Egypt such as agriculture, energy and electricity. Finally, it introduces suggestions of the necessary policies to curb these impacts ahead.

Research plan

The research is divided into five sections in addition to the introduction. They are as follows:

First: environmental dichotomies of the WTO

Second: the world environmental standards and requirements

Third: the impact of WTO agreement implementation on some environmental indicators in Egypt

Fourth: quantitative assessment of the WTO agreement implementation on some environmental indicators in Egypt

Fifth: findings and recommendations

First: environmental dichotomies of the WTO

The environmental issues have occupied the most paramount importance at all international, domestic and regional levels in different activities, particularly after the exacerbation of the environmental imbalances phenomena which have negative effects at the lives of current and future generations. Therefore, both developed and developing states work hard to face these environmental issues in line with the world trade policies and systems through concluding suitable formulas to coordinate among the objectives of world trade liberalization and the environmental objectives which might put barriers on the trade exchanges and make a new form of protection measures (Amro Alshrbiny, 1997) ^[3].

Although the environmental dichotomy does not have a great concern over the different stages of the GATT agreement, a group of important agreements have been concluded during Uruguay session which directly or indirectly included the environmental dichotomy. Although the last Uruguay GATT session does not include a certain environmental agreement, the special agreement of health and botany health determined the measures which each state may adopt to protect its population, animal and plant from any risk (Samir Mohamed Abdelaziz, 1997) ^[15]. The agreement on technical barriers

trade (TBT) included some technical rules that clearly agree with the environmental objectives. This agreement refers that any state has no right to prevent another state from implementing the necessary standards to protect the health and life of man, plant and animal provided that these standards represent unjustified distinction means (Michael Damian and Jan Christove, 2001) ^[8].

The convention of the ministerial conference in Marakish has led to the declaration of establishing the World Trade Organization and the environmental concerns have been increasingly taken into considerations as the creation of the committee of trade and environment (CTE) was approved. It is considered as the first institutional frame which is concerned with including the environmental dichotomy into the WTO frame in order to reinforce the reciprocal interaction between the trade policies and the world environmental policies. The environmental concerns were mentioned in the formulation text related to the WTO agreement "the parties states need to protect and maintain the environment; increase the means that ensure this implementation in the way which is consistent with the requirements and concerns of each of them according to the various levels of economic growth" (Mohsen Ahmed Helal, 2001) ^[11]. At the Marakish meeting, the developed states asked for creating a sub-committee to be concerned with coordinating the trade and environment related policies. The CTE is concerned with determining the relationship between the world commercial system rules which has multiple parties, imposed fees and customs for environmental purposes (environmental pricing) and the environmental requirements related to products and standards and technical systems. The environmental pricing issue and the direct and indirect externalities such as the natural resources costs like water and indirect contamination impacts represent a special importance to the developing states. The environmental pricing implementation within the world trade principles will lead several developing states to cease production of many of their food and agricultural products and totally rely on imports. This matter is not compatible with their national security considerations (Mohamed Othman Mousa, 1996) ^[10].

In addition, the committee is concerned with clarifying the multiple parties-trade system rules in regards to the adopted commercial measures transparency in order to achieve the environmental objectives, procedures and the effective commercial impacts related to the environmental requirements. It also clarifies the relationship between the dispute settlement mechanisms within the multiple parties-trade system and other world agreements concerned with the environment. It determines as well the impact of environmental procedures to penetrate into the markets, particularly of the developing states namely their less growth states. The CTE believes that the optimal frame of handling the environmental problems is cooperation under the multiple-parties environment agreements. The committee also confirms disallowing the existence of unilateral procedures under the allegation of environment preservation which contradicts with the WTO trade liberalization rules (Ministry of economy and foreign trade, 1999) ^[9]. The developed states believe in the necessity of giving priority to solving disputes in consistence with multiple-parties world environment agreements. Meanwhile the developing states prefer seeking the help of disputes settlement system within the WTO (Magda Shahin, 2000) ^[7].

Notably, most of the developing states cannot abide by all provisions. Therefore, the developing states consider the new

environment-related standard provision and the environmental pricing as a new type of trade protection through which the developed states can restrict the developing states freedom. Hence, the environment future within the WTO is largely related to its ability to balance between the environmental interest of the developing states which contradict with those of the developed states which is a really difficult matter indeed. In spite of the successive ministerial meeting of the WTO and the hot debate among the developed and developing states regarding the environmental dichotomy of the world trade, there is still a large gap between both parties' stances in a clear reflection of their development levels (The United Nations, 1995) ^[16].

Second: international standards on environmental requirements

The international standards on environmental requirements have witnessed rapid developments within short periods of time. This means the environmental consistence process of the agricultural and industrial products has high paramount importance and necessity under the trade competition and the increased supply size of the goods and services at the international level. In spite of the private institutions and governments' requirements strict environmental standards on the goods and services free of chemical materials that harm the consumer, these barriers and requirements are still limited. They are represented in obtaining ECO-Labeling, besides the individual eco requirements of some importers represented in the code of conduct (IISD, 2000) ^[5]. As these requirements and standards are considered as new to the developing states and impede their exports to the world markets, some developing states had to participate in the WTO negotiation regarding the environmental requirements and the development of environmental laws and standards relevant to production in order to ensure the consumer protection, increase the competitiveness of the developing states' products and thus increase their exports to the world markets (Kym Andrrson, 1995) ^[6].

Notably, the environmental requirements have recently become an international requirement as Europe is considered as one of the most important regions that pays great concern to these standards, particularly the German market. The most important factors that led to the concern of the environmental aspect of the production process are as follows (Amro Alshrbiny, 1997) ^[3]:

- The environmental standards and requirements are considered as one of the most important factors for activating the competitiveness.
- The environmental standards and requirements are considered as one of the most important barriers for the world trade after eliminating the amount allocation system.
- The limited productivity of several developing states in spite of having many relative privileges such as cheap labors and raw materials abundance.
- The developed states are willing to provide technical and financial aids to the developing states in the environmental field to ensure the consumer protection.
- Importers seek the help of other capable producers of meeting the environmental standards and requirements.
- Failure to meet these standards and requirements means further pressure on the exporters to reduce prices.
- The environmental standards and requirements act as a license to allow the flow of goods and services into the world markets.

In the light of what is mentioned earlier, the environmental standards and requirements are represented in the WTO frame to protect the environment at three main axes, namely legislations and laws, international labeling of the environmental consistence and finally the importers-related charters (the buyers).

- Legislations and laws: it is a group of legislations and laws devised by the governments to ensure adherence of directing the government in the field of environmental protection and its implementation as a compulsory demand when the exporter wishes to enter the state's markets while imposing sanctions on the individuals and corporations which violate such legislations and laws in order to ensure the consumer protection (U.S office of Technology Assessment, 2003) ^[17].

- Eco-labeling of environmental consistence: it means the eco mark as a certificate which ensures an environment-friendly product and chemical-material free product that harm consumer. This certificate is a prerequisite in the west Europe. However, the requirements for obtaining this certificate are not the same at the world level. The certificate usually provides brief information about the environment-related product specifications and helps the consumer selects a safe good and the most environmentally compatible product (Piritta sorsa, 1992) ^[13]. The ECO Text 100, ECO Text 1000 and EU Flower are considered as the most environmentally compatible certificates at the world level. Obtaining the environmentally compatible certificates leads to secure the state's share in the exporting market, improve the product quality, realizes further financial saving besides improving the environmental performance through eliminating the dangerous and poisoning materials. It also rationalizes the use of water, energy, and the raw materials and decreases the environmental contamination (Nick Hanley, Jason F. shogren, Ben white, 2002) ^[12]. Remarkably, the environmentally compatible certificates are not the utmost end of the environmental standards and requirements as the importer may ask for additional requirements. This certificate is, however, considered as a starting point towards negotiations between the importer and the exporter. Therefore, the selection should of a certificate characterized by general acceptance and meeting the most common requirements among the importers. This requires the analysis of market requirements and selection of the environmentally compatible certificate characterized by simple standards when implemented, more sustainable, less cost such as the Eco Text 100 which is commonly used in the Western Europe states and the German market because it focuses on the final product not on the product cycle (World Resources Institute, 2008).

- Code of Conduct: It includes the requirements and conditions determined by the importer (the buyer) or the mega international trade corporations. They are considered as optional not compulsory conditions in the form of a charter or contract between the Mega Corporation and the exporters. The exporters' signature is binding for them in their dealing with the corporation to which they will export. This entails adjusting their conditions in line with the environmental provisions in the field of health and work and other ethical provisions related to labor children, evening work for children, wages, salaries, compensations, working hours of a shift, overtime bounce, harsh measures against labors or racial discrimination against labors while working in the establishment. It also includes the non-adherence to the

standard of obtaining social responsibility certificate for the establishment and its role of serving its surrounding community which is known as SA 800. The violation of this standard or charter leads to discarding the product out of the external market particularly when there are many competitors capable of adhering to the charter's terms and abiding by the environmental standards and requirements (WTO, 1999) [19]. Although this charter aims to be implemented in all the world states, the developing states are considered as one of the most states concerned with implementing this charter in order to improve their social and working conditions and thus improve the economic return through implementing these environmental standards.

Third: the impact of WTO agreement implementation on some environmental indicators in Egypt

Tables 1 and 2 clarify the most important environmental indicators in Egypt pre and post the WTO agreement implementation during the periods (1989-1994) and (2007-2012). Table 1 shows the total arable lands have increased by 328 thousand hectares during the pre-agreement first period. It increased from about 2296 thousand hectares in 1989 to almost 26247 thousand hectares in 1994 by an annual positive changeable average rate of 2.8%. Table 2 shows after the WTO agreement implementation, the total arable lands increased by 17 thousand hectares as it increase from almost 2817 thousand hectares in 2007 to about 2834 thousand

hectares in 2012 by an annual positive changeable average rate of 0.2%. The energy total consumption of all sources of the Egyptian economy increased by 2766.7 thousand metric tons of oil coefficient during the pre-agreement first period. It increased from about 30750.9 metric tons coefficient in 1989 to about 33517.6 thousand metric tons coefficient in 1994 by an annual positive changeable average rate of 1.8% (Table 1). The total energy consumption of the Egyptian economy has increased in the post-WTO agreement implementation by 9266.3 thousand metric tons oil coefficient. It increased from almost 35223.4 thousand metric tons coefficient to about 44489.7 thousand metric tons coefficient by an annual positive changeable average rate of 6% (Table 2). Table 1 data refer to the increase of total electricity consumption in the Egyptian economy by 702.4 thousand metric tons coefficient during the pre-agreement first period. It increased from almost 2942.5 thousand metric tons coefficient in 1989 to about 3644.9 thousand metric tons coefficient in 1994 by an annual positive changeable average rate of 4.4%. Table 2 data refer to the increase of total electricity consumption in the Egyptian economy by 1044.4 thousand metric tons coefficient in the post WTO-agreement implementation. It increased from 3812.5 thousand metric tons coefficient in 2012 to almost 4856.9 thousand metric tons coefficient in 2012 by an annual positive changeable average rate of 6.3%.

Table 1: Some environmental indicators in Egypt before the application of the WTO Agreement

| Indicators | total cultivable land (thousand hectares) | annual change | | total energy consumption (thousand metric tons equivalent) | annual change | | total electricity consumption (thousand metric tons equivalent) | annual change | |
|------------|---|---------------|-------|--|---------------|-------|---|---------------|-----|
| | | value | % | | value | % | | value | % |
| 1989 | 2296 | - | - | 30750.9 | - | - | 2924.5 | - | - |
| 1990 | 2284 | (12) | (0.5) | 32023.9 | 1273 | 4.1 | 3110.7 | 168.2 | 6.0 |
| 1991 | 2267 | (17) | (0.2) | 32424.8 | 400.9 | 1.3 | 3260.3 | 149.6 | 4.8 |
| 1992 | 2519 | 252 | 11.1 | 33279.1 | 854.3 | 2.6 | 3346.1 | 85.8 | 2.6 |
| 1993 | 2617 | 98 | 4 | 35565.6 | 2286.5 | 6.9 | 3493.6 | 147.5 | 4.4 |
| 1994 | 2624 | 7 | 0.3 | 33517.6 | (.2048) | (5.8) | 3644.9 | 151.3 | 4.3 |

Source: Collected and calculated from data World Resources Institute, Earth Trends, The Environmental information portal, www.wri.org. World Bank, world development indicators, 2002

Table 2: Some environmental indicators in Egypt after the application of the WTO Agreement

| Indicators | total cultivable land (thousand hectares) | annual change | | total energy consumption (thousand metric tons equivalent) | annual change | | total electricity consumption (thousand metric tons equivalent) | annual change | |
|------------|---|---------------|---|--|---------------|-----|---|---------------|-----|
| | | value | % | | value | % | | value | % |
| 2007 | 2817 | - | - | 35223.4 | - | - | 3812.5 | - | - |
| 2008 | 2820 | 3 | | 37183.9 | 1960.5 | 5.6 | 3982.1 | 169.6 | 4.5 |
| 2009 | 2834 | 14 | | 39049.2 | 1865.3 | 5.0 | 4260.2 | 278.1 | 7.0 |
| 2010 | 2834 | - | | 41848.4 | 2799.2 | 7.2 | 4556.1 | 295.9 | 7.0 |
| 2011 | 2834 | - | | 44489.7 | 2641.3 | 6.3 | 4856.9 | 300.8 | 6.6 |
| 2012 | - | - | | - | - | - | - | - | - |

Source: Collected and calculated from data World Resources Institute, Earth Trends, The Environmental information portal, www.wri.org. World Bank, world development indicators, 2013

Fourth: quantitative assessment of the WTO agreement implementation on some environmental indicators in Egypt

Table 3 indicates the quantitative assessment of the effect of implementing the WTO agreement on some environmental indicators during the pre and post WTO agreement implementation in the two periods of (1994-1989) and (2007-2012). It shows the WTO agreement implementation contributes to the decrease of the total annual average of the arable lands in the Egyptian environment by 2.6%. The pre-agreement rate estimated almost 2.8% compared to 0.2% in the post-agreement implementation period. The total annual

average of the arable lands grew by 393.3 thousand hectares after the agreement implementation. It reached about 243.5 thousand hectares in the pre-agreement implementation compared to about 2827.8 thousand hectares after its implementation. The increase estimated 6%. The total annual average of energy consumption grew by about 4.2%. In the pre-agreement implementation, the rate estimated by 1.8% annually compared to about 6% after its implementation. The total annual average of energy consumption grew by 6631.9 thousand metric tons after the agreement implementation. It grew by about 32927 thousand tons before its implementation compared to about 39558.9

thousand tons after its implementation with an increased rate of 20%.
 The total annual average of electricity consumption grew by about 1.9% annually. In the pre-agreement implementation, the rate estimated by 4.4% annually compared to about 6.3% after its implementation.

The total annual average of electricity consumption grew by 993.9 thousand metric tons after the agreement implementation. It reached 3299.7 thousand metric tons before the agreement implementation compared to about 4293.6 thousand metric tons after its implementation with an increase estimated 30%.

Table 3: quantification estimation of the impact of the application of the WTO Agreement on some environmental indicators in Egypt before and after the application.

| Indicators | Before the application of the WTO Agreement | After the application of the WTO Agreement | annual change | |
|---|---|--|---------------|--------------|
| | | | increase (+) | decrease (-) |
| Total cultivable land in Egypt | | | | |
| The annual average of the total cultivable land (thousand hectares) | 2434.5 | 2827.8 | 393.3 | - |
| The annual average change rate of the total cultivable land | 2.8 | 0.2 | - | 2.6 |
| Total energy consumption from all sources in the Egyptian economy | | | | |
| The annual average of the total energy consumption (thousand metric tons equivalent) | 32927 | 39558.9 | 6631.9 | - |
| The annual average change rate of the total energy consumption | 1.8 | 6 | 4.2 | - |
| Total electricity consumption in the Egyptian economy | | | | |
| The annual average of the total electricity consumption (thousand metric tons equivalent) | 3299.7 | 4293.6 | 993.9 | - |
| The annual average change rate of the total electricity consumption | 4.4 | 6.3 | 1.9 | - |

Source: Calculated from data tables 1 and 2

Fifth: findings and recommendations

The most important findings of the research are represented in the environmental dichotomy clarity in line of the WTO agreement through creating an environment and trade committee as the first institutional frame supervising the relevant negotiations. The international trade liberalization in line of the WTO leads to the increase of total annual average of energy consumption of all sources and electricity by 20% and 30% successively while the arable lands grew by 6%.
 In the light of these findings, some suggestions can be introduced. The most important suggestions are the necessity of devising procedures and legislative and economic constraints necessary to prevent the transfer of unsuitable technology that consumes the natural resources, available energy or the contaminated activities of the Egyptian economy. In addition, the government should stimulate and encourage the intensive-contamination activities to implement environmentally-clean technology through providing the technical and financial support to these activities. Finally, the necessity of close cooperation between Egypt and the developing states to practice pressure on the developed states to participate in all relevant negotiations of devising environment standards and requirements. Egypt should also urge the developed states to transfer clean, modern, suitable and environment-friendly technology to the developing states.

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