



The WTO Agreement and its Impact on the some Environmental indicators in Egypt

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المجلد السابع . العدد الثاني عشر- الجزء الأول
يوليو 2021

رابط المجلة : <https://csj.journals.ekb.eg>

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 dimension in line with the WTO and the subsequent impacts of including this dimension 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 pre and post the WTO agreement implementation during the periods (1989-1994) and (2013-2018). Finally, it introduces suggestions of the necessary policies to curb these impacts ahead.

The study also used the descriptive and analytical approach in the theoretical side, in addition to using some statistical analytical tools to analyze the impact of WTO agreement on environmental indicators in Egypt, based on data from the World Resources Institute.

The results of the research concluded that the liberalizing global trade under the WTO agreement has become an inevitable reality, and with the growing tendency of developed countries to impose more restrictions and other measures to provide more protection for their products and local markets through measures related to non-tariff barriers, including the application of anti-dumping measures, Besides the application of technical obstacles such as environmental standards and their requirements at the international level, which leads to a negative impact on the exports of developing countries, including Egypt to the developed countries, and their ability to compete internationally, in addition it leads to other negative

effects on some environmental indicators in Egypt, including agriculture, energy, and electricity.

Keywords: Egypt, WTO, cultivable land, energy and electricity consumption, environmental indicators, environmental standards.

اتفاقية منظمة التجارة العالمية (WTO) وأثرها على بعض المؤشرات البيئية في مصر

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المخلص

يستهدف البحث التعرف على تأثير إتفاقية منظمة التجارة العالمية (WTO) على بعض المؤشرات البيئية في مصر من خلال تحليل مضمون البعد البيئي في إطار الاتفاقية وبيان الأثار المترتبة على إدراج هذا البعد في التجارة الدولية، مع دراسة وتحليل أهم المتطلبات والمعايير البيئية وأثرها في تقييد حرية تدفق السلع والخدمات للأسواق الدولية، بالإضافة إلى تحديد أهم الأثار المترتبة على تطبيق إتفاقية منظمة التجارة العالمية على بعض المؤشرات البيئية في مصر، ومنها الزراعة، والطاقة، والكهرباء، وأخيراً إقتراح السياسات اللازمة للحد من هذه الأثار مستقبلاً.

وتكمن المشكلة البحثية في تحديد مدى تعارض قواعد حماية البيئة في مصر مثل غيرها من الدول النامية مع إتفاقية منظمة التجارة العالمية ، حيث أن أغلب الإتفاقيات البيئية تحد من حرية التبادل التجاري بين الدول لأنها تهدف إلى حماية البيئة على حساب حرية التجارة الدولية، هذا بجانب تحديد أهم الأثار البيئية المترتبة على تطبيق إتفاقية منظمة التجارة العالمية والمتمثلة بشكل عام في الفجوة التنموية بين الدول النامية ومنها مصر والدول المتقدمة نتيجة إزالة العديد من القيود الجمركية والتخلص من نظام الحصص الكمية وإدراج المعيار البيئي كمعيار جديد في التجارة الدولية.

وتتمثل فرضية البحث في أن تطبيق إتفاقية منظمة التجارة العالمية يؤثر سلباً على البيئة المصرية نتيجة زيادة إستنزاف الموارد الطبيعية وارتفاع معدل التلوث البيئي. هذا بجانب وجود تعارض بين قواعد حماية البيئة في مصر والمعيار البيئي في إتفاقية منظمة التجارة العالمية.

وقد خلصت نتائج البحث إلى أن تحرير التجارة العالمية في ظل إتفاقية (WTO) أصبح واقعاً حتمياً ، ومع تنامي نزعة الدول المتقدمة لفرض مزيد من القيود والإجراءات الأخرى لتوفير مزيد من الحماية لمنتجاتها وأسواقها المحلية عن طريق الإجراءات المتعلقة بالعوائق غير الجمركية ومنها تطبيق إجراءات مكافحة الإغراق، بجانب تطبيق عوائق فنية مثل المعايير البيئية ومتطلباتها على المستوى الدولي، مما يؤدي ذلك إلى التأثير السلبي على

صادرات الدول النامية ومنها مصر إلى الدول المتقدمة وقدرتها على المنافسة الدولية، بالإضافة إلى الآثار السلبية الأخرى على بعض المؤشرات البيئية في مصر ومنها الزراعة، والطاقة، والكهرباء.

ومن أهم توصيات البحث ضرورة اتخاذ إجراءات اقتصادية وقانونية لمنع نقل التكنولوجيا غير النظيفة التي تؤثر سلباً على الموارد الطبيعية أو الطاقة المتاحة أو الأنشطة الملوثة للاقتصاد المصري. بجانب ضرورة العمل على وضع آليات تضمن حماية البيئة وتحقيق التنمية المستدامة دون التأثير سلباً على البيئة، وتتمثل هذه الآليات في الآليات الوقائية التي تشمل مبدأ حماية البيئة ومبدأ الإحتراز، والآليات المالية التي تشمل مبدأ الملوث الدافع والحوافز الضريبية. بالإضافة إلى ضرورة التوفيق بين قواعد حرية التجارة الدولية وقواعد حماية البيئة لتقليل التناقض في العلاقة بين حرية التجارة الدولية وحماية البيئة. وكذلك حث جميع الدول والمنظمات على المشاركة والإنضمام إلى أي تجمع إقليمي أو دولي يهدف إلى حماية البيئة كحق لأجيال الحاضر والمستقبل. وأخيراً، ضرورة التعاون الوثيق بين مصر والدول النامية لممارسة الضغط على الدول المتقدمة للمشاركة في جميع المفاوضات ذات الصلة بوضع المعايير والمتطلبات البيئية. كما يجب على مصر أن تحث الدول المتقدمة على نقل التكنولوجيا النظيفة والحديثة والمناسبة والصديقة للبيئة إلى الدول النامية من خلال توفير الدعم الفني والمالي لها للحد من زيادة أنشطة التلوث في القطاعات الاقتصادية المختلفة.

الكلمات المفتاحية : مصر - منظمة التجارة العالمية - الأستهلاك - الزراعة - الطاقة والكهرباء - المؤشرات والمواصفات البيئية

1. Introduction.

Under the GATT, the idea of protecting the local market by reducing the flow of goods and services has long prevailed through the application of trade policies in order to prevent the flow of goods to the local market. One of the most important of these trade policies was the application of the system of allocating amounts so that the volume of trade in certain countries does not exceed within one year the amount allocated. The implementation of this system has become one of the most important obstacles and difficulties facing the flow of goods and services to international markets (Diab and Al-Dakhli, 2009). Besides, the GATT did not include environmental standards or conditions related to international trade. The GATT also did not include any conditions to distinguish between exports from developing and developed countries, as well as countries that are on their way to pursue sustainable development policies in order to preserve their natural resources. As a result of the absence of these environmental standards within the framework of the GATT, increased the conflicts and trade problems closely related to the environment (Al-Malah,2007).

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 (Awadallah,2008). 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 (Abdelkhaliq,2006).

And after the abolition of the sums allocation system at the beginning of 2005 and the abolition of the condition of the maximum trade volume between countries based on the negotiations of the Uruguay Round within the framework of the World Trade Organization with the aim of liberalizing world trade in order to facilitate the flow of goods and services between

different countries and protect local markets from customs restrictions and apply trade procedures and policies from the developed countries side, such as the anti-dumping measures that help facilitate free trade between countries without harm to developed countries at the expense of developing countries (Awadallah,2008). In the end, it can be said that such environmental conditions and standards are among the main difficulties facing the exports of developing countries in their competitiveness in developed countries after their application, especially after the increase in these measures (Abdelkhaliq,2006).

2. Research problem.

The research problem lies in knowing and identifying the extent of the conflict between the conditions for environmental protection in Egypt, like other developing countries, with the standards of the World Trade Organization agreement. It is well known that most environmental agreements limit the freedom of trade exchange between countries because they aim to protect the environment, in addition to identifying the most important environmental impacts of implementing the WTO agreement represented in the development gap between developed and developing countries as a result of removing many customs restrictions and abolishing the quantitative quota system, and the inclusion of this environmental standard as a vital criterion in global trade.

3. Research objective.

The research aims to clarify the content of the environmental dimension in the WTO and the economic implications of including this dimension in global trade. In addition to stating the most important environmental conditions and standards and their impact on restricting the free flow of goods and services to global markets. In addition to determining the effects of the WTO agreement on some environmental indicators in Egypt, such as agriculture, energy and electricity. And finally, proposing the most important policies to reduce these impacts in the future.

4. Research method.

The descriptive and analytical method was used in reviewing the theoretical side of the research and relying on books, studies and scientific research published in the research topic. In addition, some statistical

analytical tools were used to analyze the effects of the WTO agreement on some environmental indicators in Egypt by relying on data from the World Resources Institute. A comparison was made before and after the implementation of the agreement (1989-1994) and (2013-2018).

5. Research hypothesis.

There is a negative impact on the Egyptian environment after including the environmental dimension in the WTO agreement, which leads to an increase in the waste of natural resources and a high rate of environmental pollution. In addition, there is a conflict between the conditions for environmental protection in Egypt and the environmental standards in the WTO agreement

6. Previous studies related to the research topic.

There are many previous studies that dealt with the subject of the World Trade Organization (WTO) and its impact on the environment in some different countries from different angles, and these studies varied between Arab and foreign countries.

This research article will review some of the studies that have been benefited from with reference to their most important features, in addition to providing a commentary on them that includes aspects of agreement and disagreement and defining the scientific gap on which this research article focuses. The researcher indicates that the studies that will be reviewed were conducted during the period of time between 2009-2019, and included some countries, which indicates the temporal and geographical diversity of them.

Through reviewing previous studies on the impact of the WTO agreement on some environmental indicators in Egypt, There are some Arab and foreign studies related to the research topic, and they were presented in order from newest to oldest.

- Shoaib,J.,(2019).The environmental role in the framework of the WTO .

The study aimed to clarify the role of the World Trade Organization and its bearing, in addition to managing the international trading system, to provide a minimum level of environmental protection within the scope of

international trade, to constantly discuss the relationship between the commercial and environmental systems, and to aim to achieve a reconciliation between environmental protection and freedom of trade through an international commercial logic that must guarantee Freedom of trade exchange, and environmental considerations that impose themselves, should not in themselves constitute an obstacle to this international trade exchange.

The study indicated that after the conclusion of the negotiations on liberalizing international trade in light of the GATT 1947 and then the establishment of the Marrakesh Accords in 1994 and the establishment of a world trade organization, the importance of concerting international efforts and intervening within its scope to ensure sustainable protection of the environment, as well as the lives of present and future generations, especially in the absence of An international organization for the protection of the environment, and in light of serious environmental changes that do not recognize borders or sovereignty of states through environmental conferences attended by most of the GATT parties.

- Falah,H.,(2019).The Reality of International Commitment to Protecting the Environment in Global Trade Liberalization Agreements.

The study indicated that from the Stockholm Conference on the Human Environment in 1972 until the Johannesburg International Conference on Sustainable Development in 2002 to the recent Mexico Conference, the international environmental community has developed, through the United Nations, many global environmental agreements that most countries of the world have signed and ratified. The number of international environmental agreements exceeded thirty agreements that covered many issues such as biodiversity, climate, the ozone layer, desertification, genetically modified organisms, and others. These agreements included many basic principles that are the spirit of these agreements and the spirit of international cooperation in order to preserve the environment and natural resources.

Also, the great challenge with regard to environmental protection seems to have grown since the results of the Uruguay Round of liberalizing global trade were approved, as the global economy is facing an accelerating wave of liberalization of sectors with a commercial dimension, and countries

refuse to invoke environmental protection after their involvement in the international trading system that they supervise its implementation. The World Trade Organization, as every state intervention to put in place legislative or procedural restrictions to protect the environment may constitute, in the view of trading partners, an infringement of the principle of liberalizing world trade and thus prejudice the benefits of other countries that are parties to the World Trade Organization.

The study raises the problematic of the extent of the ability of global trade liberalization agreements to formulate more precise rules and principles to reconcile between achieving economic prosperity and the requirements of environmental protection and allowing countries to intervene to reduce the phenomenon of environmental degradation.

-Azab,S.,(2017).Environmental Challenges facing Egyptian Industrial Exports.

The study aimed to clarify the nature of the environmental standards that govern international trade markets, and which pose challenges to Egyptian industrial exports, and the possibilities of facing these challenges. The study also indicated that exporters in Egypt are facing pressure from their customers in developed countries to apply environmental specifications not only to products, but also to their production methods, and the inputs gaseous and liquid pollutants released and how to deal with them. The matter may amount to a request from the importing country to inspect factory facilities and production facilities, as in the case of food industries and cosmetics, especially when dealing with branches of multinational companies.

Adherence to environmental specifications also constitutes a significant increase in production costs by using cleaner technology, which affects the profitability and competitiveness of export industries. This effect is intensified on developing countries such as Egypt that specializes in exporting a limited number of commodities, "most of which are environmentally sensitive products", so that the negative impact on certain sectors that are heavily polluted in other sectors is difficult to compensate for.

The study concluded that despite the inconsistency of these specifications with the provisions of the World Trade Organization, and

despite their lack of suitability for the Egyptian local conditions. Firms wishing to export to these markets have no choice but to adhere to it, because they also create barriers to trade, they also provide promising opportunities for green marketing of exports. This requires starting to take the necessary measures to adapt production processes to environmental specifications as steps on the road to sustainable development.

-Ayashi,A.,(2017).The Reality of Foreign Trade According to the Environmental Standards of the World Trade Organization.

The study aimed to clarify the extent of the impact of environmental standards on foreign trade and to study the most important emerging and influencing variables and factors in foreign trade, including environmental standards and requirements affirmed by the Uruguay Agreement Group and the World Trade Organization, which are considered one of the main innovations that govern exports to various world markets.

The World Organization's agreements on the environment include setting environmental taxes, duties, technical barriers, and standards that guarantee food safety, plant and animal health.

The study indicated that environmental standards are those conditions that must be fulfilled in products, whether in their production inputs or their component materials, or in their production methods or packaging methods. The study dealt with the effects of environmental requirements on economic practices represented in foreign trade, especially the competitiveness of developing economies, and the effect of environmental standards applications by members of international exchange as a hidden economic practice on trade relations.

The study raised the following problem: What is the impact of environmental standards on trade exchange between Algeria and the European Union.

- Bouchdoub,M.,(2013).International Protection of the Environment in the Framework of the World Trade Organization.

The study aimed to examine the relationship between the liberalization of international trade and the protection of the environment by proposing two main ideas, one opinion that the liberalization of international trade

contributes to raising the level of income of companies that can effectively contribute to environmental protection programs, while another opinion is that the liberalization of international trade results in its nature to accelerate environmental degradation.

The following problem was raised: Did the liberalization of international trade effectively protect the environment, or did it by its nature lead to an acceleration of environmental degradation? What are the results achieved by the World Trade Organization in protecting the environment?

The results of the study concluded that trade liberalization based on the observance of environmental rules will inevitably help protect natural resources and ecosystems in order to promote sustainable development, while trade liberalization without taking into account environmental aspects may be a cause of environmental damage.

- Amer,H.,(2012).Environmental aspects of the multilateral trading system within the framework of sustainable development requirements and their implications for Arab countries.

The study aimed at the development and content of the global multilateral trading system, after taking into account the environment and environmental aspects within the current trends of the World Trade Organization and their implications for the economies of Arab countries and the reality of liberalizing trade in environmental goods and services in Arab countries and their compatibility with the demands of sustainable development.

The study relied on the main premise: The World Trade Organization seeks to preserve the environment through the environmental considerations it has adopted in trade liberalization agreements to promote sustainable development in its environmental dimension, provided that this facilitates the integration of Arab countries and improves their position in international trade.

The following problem was raised: Will the environmental aspects adopted by the World Trade Organization facilitate the integration of Arab countries and improve their position in international trade, or will it create new obstacles in addition to those they faced under the previous regime?

The results of the study concluded that developing countries, including Arab countries, will be affected by their denial of market access for their products to the market due to their lack of respect for environmental requirements that require very advanced technologies that they cannot possess in the medium or long term, which affects their competitiveness, and thus increases the dependency of these countries. Economically, and thus the World Trade Organization helped to disturb the economic dimension, as well as the social dimension, by increasing the gap between the countries of the North and the South, expanding poverty and so on.

- Bashir,H.,(2009).Environmental protection in the World Trade Organization agreements.

The study aimed to find out the extent to which the WTO agreements were able to reconcile the goals of liberalizing global trade and protecting the environment, and how in light of these agreements can provide adequate and effective protection against threats to the environment, as the issue of protecting the environment from pollution risks and depleting its wealth by exploitation Excessive natural resources have become among the most important global issues and problems, especially for third world countries, where environmental standards have been included as one of the elements used to restrict the free movement of global trade. The fact that exports of these countries depend heavily on raw materials and low-tech industries that do not pay much attention to the environmental dimension.

The study pointed out that the agreements related to the liberalization of international trade, starting with the GATT in 1947 and ending with the World Trade Organization in 1994, mainly aim at liberalizing world trade, but they completely neglect the protection of the environment. Since the late eighties, great interest began in the issue of the relationship between the environment and the free movement of international trade.

- Aspects of agreement and differences between previous studies and identifying the research gap.

The current research agrees with the majority of previous studies in the scientific method followed in the research, as well as it agrees with most of the results mentioned by previous studies, especially the conflict between the environmental protection rules in Egypt and the environmental standard in the WTO agreement.

This research also agrees with most of the previous studies that there are many obstacles and challenges facing developing countries, including Egypt, as a result of the inclusion of the environmental dimension in the World Trade Organization and the negative impact on its exports to developed countries and competition in global markets. Therefore, it is necessary to prepare in advance to overcome or reduce them.

This research is distinguished from previous studies by focusing on clarifying the role of the environmental dimension within the framework of the World Trade Organization in application to Egypt, to demonstrate weaknesses and strengths, and to present proposals to address defects in the Egyptian environmental indicators, as no specialized studies have been conducted on this subject with the aim of enriching the Egyptian library, by adding scientific value to this topic.

This research differs from previous studies on the subject which choosing environmental indicators, formulating objectives, the method of analyzing and presenting results. This research also differs from previous studies in the environment, place and time of application this research, which the current research was applied in an environment (Egypt) that differs from the others environments in which the previous studies were applied.

By reviewing aspects of agreement and difference between previous studies, it should be noted that this research article is consistent with previous studies in its main topic and general purpose, but it differs from it in several aspects that represent the scientific gap that this research article focuses on, which that the current research article included two approaches (the Quantitative and qualitative approach) to show the impact of the environmental dimension in the World Trade Organization on some environmental indicators in Egypt such as cultivable land, energy and electricity consumption.

7. Research plan.

The research is divided into six parts as follows:-

- First: Theoretical and conceptual framework.
- Second: environmental issues of the WTO.

- Third: International standards regarding environmental requirements and conditions.
- Fourth: the impact of WTO agreement implementation on some environmental indicators in Egypt.
- Fifth: quantitative assessment of the WTO agreement implementation on some environmental indicators in Egypt.
- Sixth: Conclusion and Policy Implications.

First: Theoretical and conceptual framework.

There is no doubt that the World Trade Organization represents a historical and objective extension of the General Agreement on Tariffs and Trade (GATT). Established to promote trade, the GATT has governed trade between signatory nations in North America, Latin America, Asia and Western Europe since the immediate aftermath of World War II. Over the years, it has been renegotiated in eight successive rounds that removed or reduced tariffs, quotas and other barriers to trade.

The establishment of the World Trade Organization was based on the negotiations of the last round, the Uruguay Round during the period (1986-1994) in order to build a strong institution to manage the file of the various agreements that were negotiated throughout that last period (Kelly ,2008).

It is worth noting that the World Trade Organization is stronger than its predecessor institutions, so critics believe it represents a threat to national sovereignty. These concerns about the ability of countries to formulate their environmental, health, and safety agendas are evident in these criticisms. In addition, because new provisions negotiated during the Uruguay Round promote the harmonization of various product safety standards and require scientific justification for food safety standards, Some critics suggest that trade objectives should be prioritized and preferred when compared to health, safety and environmental goals in the World Trade Organization (Waincymer, J. ,2010).

The General Agreement on Tariffs and Trade (GATT) dates to 1947 when 23 countries sought to establish a framework to govern international trade in the aftermath of World War II (Hudec, 2009). Over the years, the GATT has been renegotiated seven times generally in multiyear sessions known as rounds. The last two rounds produced a number of new

agreements that supplement the General Agreement and attempt to address its limitations.

One of these agreements established the World Trade Organization in order to administer the General Agreement and other related sub-agreements. The WTO replaces the GATT institutions that had administered the General Agreement in the past. There is a commitment in the WTO agreement for the signatories to this agreement that includes commitment to not only the provisions of the general agreement, but also most other agreements that were negotiated before the organization was established (WTO, 1994b).

In contrast, participation was optional in several new agreements (including technical barriers to trade, dumping and countervailing duties) negotiated during the Tokyo Round. GATT members were obliged merely to comply with the General Agreement (B. McDonald, 2007). As a result, the WTO and the agreements that it administers are substantially more powerful than their predecessors.

Several provisions within the General Agreement and the other agreements impact environmental regulations. The General Agreement's non-discrimination provisions prohibit members from discriminating against foreign producers. The National Treatment and Most Favored Nation provisions ban discrimination against imports and require non-discriminatory treatment of all imports regardless of source. Thus, in general, members are required to impose the same environmental measures on domestic and foreign production (WTO, 1994b).

There is no doubt that the 1972 Stockholm Conference achieved a strong impetus and greatly helped the local environmental work in many countries of the world. This conference represents a clear and great turning point in international cooperation in the field of the environment. It includes the responsibility of different countries not to harm the environment outside their borders through their local economic activities. One of the outcomes of this conference was the creation of the United Nations Environment Program (UNEP) as well as a set of international agreements in the field of the environment (Engerfelt, L, 2010), and it is worth noting that there are three channels in which trade affects the environment (Nordstrom, H., and Vahugan, S. 2012). The most important of them are the following:

- Scale effects. As scale effects lead to a clear negative impact on the environment, increased production often means more environmental pollution.
- Composition effects. The effects of the composition lead to both positive and negative impacts on the environment. Trade and growth may lead to a shift in the composition of a specific country's output from one sector to another, such as shifting the composition of the agricultural sector to manufacturing or shifting the composition of the industrial sector to the services sector, meaning that there are sectors that expand while other sectors tend to narrow.
- Technology effects. The impacts of technology on the environment may be positive or negative, and it is known that trade is often linked to the increase in technological development and advancement as well as the means of technology transfer. There are two cases that can be distinguished between them, the first case replacing the old technologies with clean technologies and here the impact on the environment is low, and the second case for the transfer of polluting technology and here the impact on the environment is high (Grossman, and Krueger, 2014).

The overall impact on the environment is determined by one of the three previously mentioned influences, and there are a number of factors that help in this, such as the structure of the economy, the domestic product, the standard of living, the size of the economy, economic and social development, as well as other legislative, political and cultural factors.

It is worth noting that the effects of trade liberalization will vary greatly according to the sector concerned and according to the country and region to which you belong, whether in the European, African or Asian regions. Besides, massive liberalization of trade in environmental goods and services (EGS) brings positive benefits to both the environment and trade. In spite of all this, the environmental impacts of trade liberalization in the fossil fuel sector may be positive in the energy sector, and lowering fuel prices may lead to an increase in consumption and thus an increase in environmental pollution (Centre for International Trade, 2013).

Finally, trade liberalization agreements can be introduced and implemented through various procedures and methods, taking into account

environmental, social and economic impacts. When the results of trade liberalization are positive, effective environmental policies must be implemented, and the characteristics, productivity and components of the economic sectors that are liberalized have a clear impact on the environment. In this case, trade liberalization must be carefully planned so as not to result in negative consequences, by giving it more time or an appropriate transition period in order to reduce the negative environmental, economic and social impacts. Therefore, an effective and appropriate environmental policy should be developed to reduce these previous effects.

Economic theory concludes that without an ideal environmental policy (the polluter pays principle and the precautionary principle), environmental losses may offset the economic gains from trade. Therefore, trade liberalization should be accompanied by effective environmental policies and multilateral environmental agreements to protect the global environment, in order to enjoy the benefits from trade (Cosbey, 2012).

- Trade and environment in the WTO Agreement.

Concerns and international tension increased with the beginning of the seventies of the last century regarding the impact of economic growth on the environment as well as social development. During the eighties, these concerns also included international trade talks, as most members of developing countries increased fears of exporting products banned in developed countries to them due to reasons related to pollution and environmental damages , resulting damages or causes related to safety, safety and health issues (Shaw, and Schwart, 2013).

In light of this, the GATT members agreed in the last round of negotiations in Uruguay to adopt a cooperation program on environment and trade. It is a program that was confirmed in Marrakesh in 1995 with the declaration of the World Trade Organization as a development in the GATT, which resulted in the decision to call for the establishment of a Committee on Trade and Environment (CTE). This committee has been granted broad powers regarding reviewing the relationship between trade and environment measures in order to support the process of sustainable development and to submit the proposals and required measures regarding any amendments to the foundations and rules of the World Trade Organization to fit the concept and importance of integrating the

relationship between environment and trade in the WTO Agreement (Chaytor, & Cameron, 2009).

With the convening of the Singapore Ministerial Conference in 1996, which resulted in the issuance of the Singapore report, where discussions by the Committee on Trade and Environment focused on a basic premise, which is the lack of contradiction between the multilateral trading system and the protection of the environment, based on the content of the Marrakesh decision regarding the establishment of the World Trade Organization. This is in addition to the conclusion of the Trade and Environment Committee that the jurisdiction of the international trade system should be concerned with trade policies and aspects related to environmental policies and the important commercial implications thereof for the member states of the agreement. In this context, the policies required to be taken at the local level of the member states were coordinated in order to achieve the national goals on the one hand, as well as the common goals of the member states of the agreement on the other hand with regard to issues of sustainable development, trade and the environment (Abdel Motaal, 2014).

Through a review by the Committee on Trade and Environment (CTE) of the relationship between the provisions of the World Trade Organization and environmental taxes and fees, it was found that the field is already present in the WTO agreement with regard to the application by member states of the provisions of environmental fees and taxes. As a result, developing and least developed countries feel their lack of adequate information on the characteristics of locally banned goods or goods with technological capacity that can be imported from developed countries based on clear, prior, and publicly known information or with transparency (Sampson, 2009).

Without a doubt, liberalizing trade in environmental goods and services (EGS) is an important measure towards sustainable development. There are many studies that show (OECD, 2011 and UNCTAD, 2008,2010) that developed countries dominate exports as well as import trade in the international market for traditional environmental goods, however developing countries benefit from liberalizing environmental goods and services from various aspects such as lower prices. Relative to environmental goods and services; And achieving economic, environmental

and developmental gains as a result of developing environmental infrastructure, efficiently managing economic resources and supporting the ability to meet environmental requirements in international markets, and finally, accessing environmentally friendly technology.

Second: environmental issues of the WTO.

The environmental issues occupied great importance at all local, regional and international levels in most activities, especially after the increase in the phenomenon of environmental imbalances and their negative effects on current and future generations. Therefore, developed and developing countries make their continuous efforts to confront those imbalances related to environmental problems in line with international trade policies and systems by setting appropriate policies to coordinate between the objectives of liberalizing global trade and environmental goals to avoid taking new measures of customs protection and trade barriers between different countries of the world that will have Negative effect on developing countries in particular (Alshrbiny,2007).

Although the last round of GATT negotiations in Uruguay does not include a specific environmental agreement, the Sanitary and Phytosanitary Agreement specified the means and procedures required of each country in order to protect its inhabitants, animals and plants from any danger (Abdelaziz,2005). The Technical Barriers Trade Agreement (TBT) included some technical standards that are clearly consistent with the environmental objectives, as this agreement shows that no country has the right to prevent another country from implementing the standards necessary to protect the health and life of humans, plants and animals (Damian and Christove,2014).

With the announcement of the establishment of the World Trade Organization in Marrakesh in 1995, interest in environmental issues increased, as it was approved to establish the Committee on Trade and Environment (CTE), which is the first institutional framework for the inclusion of environmental content in the drafting of the WTO agreement in order to support mutual interaction between Trade issues and their overlap with global environmental policies.

The environmental content was mentioned in the agreement through the following paragraph, “The states parties to the WTO agreement must protect and preserve the environment; increase the means that ensure the

implementation of the agreement in all ways and means that are consistent with the orientations and requirements of each country according to the levels of economic growth” (Hilal, 2012)). In the 1995 Marrakesh meeting, developed countries requested the necessity of establishing a sub-committee to coordinate policies related to trade and the environment and to define the relationship between the foundations of the international trading system with multiple parties, the fees and customs imposed for environmental purposes (environmental pricing) as well as other environmental technical requirements, standards and regulations.

There is no doubt that the issue of environmental pricing and external factors, whether direct such as the costs of natural resources (such as water) or indirect (such as the effects of pollution) are of great importance to developing countries. The implementation of environmental pricing may push many developing countries to stop producing many Its food and agricultural products are completely dependent on imports (Mousa, 2004).

In addition to that, one of the objectives of this committee(CTE) is to clarify the relationship between dispute settlement mechanisms within the multilateral trading system and other global agreements concerned with the environment, as well as to determine the impact of environmental measures to enter markets, especially in developing countries or less developed countries. In addition to clarifying, defining and clarifying the rules of the international trading system regarding the extent of transparency of commercial procedures in order to achieve environmental goals and commercial effects closely related to environmental requirements.

This committee (CTE) stresses that the best way to deal with environmental issues and problems is through the necessity of cooperation according to the multilateral environmental agreements. The committee also stresses that unilateral measures are not allowed for the motive of preserving the environment, which contradicts the rules of trade liberalization (Ministry of Economy and Foreign Trade, 1999). Developing countries prefer to use the dispute settlement system within the World Trade Organization, while developed countries see the need for priority in resolving disputes in line with global environmental agreements (Shahin, 2014).

Developing countries believe that the new standard related to the environment and environmental pricing represents a new type of trade

protection through which developed countries can restrict the freedom of developing countries. It is difficult for most developing countries to abide by all the environmental content provisions in the WTO agreement. Therefore, the future of the environment within the World Trade Organization is related to the ability to achieve a balance between the environmental interests of developing countries and their clear opposition to the interests of developed countries.

In spite of the ongoing controversy between developed and developing countries in the World Trade Organization meetings regarding the environmental dimension of global trade, there is still a big gap between the two parties' positions regarding agreement on its formulation that satisfies all parties, as the game of interests is the main criterion, which affects future economic growth and levels Development in developing countries in particular (The United Nations,2015).

Third: International standards regarding environmental requirements and conditions.

Although the environmental requirements and conditions are considered new to developing countries and hinder their exports to international markets, by the participation of developing countries in the World Trade Organization negotiations, they can amend some laws, standards and environmental requirements in their favor, especially those related to production in order to ensure consumer protection and increase competitiveness. For its exports, products and entry into the world market (Andrrson, 2015).

In general, it can be said that within a short period of time the international conditions and standards related to the environment developed rapidly, and the link between the dimension and the environmental content and agricultural and industrial products became of great importance with the increasing intensity of commercial competition at the international level. Despite the requirements of private institutions and governments to apply severe environmental rules to goods and services that contain chemicals that harm the health of the consumer, these obstacles and requirements are still limited, and his representative in the Code of Conduct (International Institute for Sustainable Development, 2014), whether in obtaining ECO-labeling or Individual environmental requirements of some importers.

It is worth noting that during the recent period, environmental requirements and conditions have become advocated by most of the developed world, and European countries pay great attention to these environmental conditions and standards, especially the German market. Among the most important factors that led to concern for the environmental dimension in the production and manufacturing process are the following (Alshrbiny,2007):-

- Environmental standards and conditions are considered the most important obstacles to international trade after the abolition of the sums allocation system.
- Low productivity of many developing countries, despite the availability of cheap labor and abundance of raw materials.
- Environmental conditions and requirements are the most important factors in activating competitiveness.
- Importers can meet the environmental requirements and requirements through producers who have the ability and competence to achieve these requirements.
- The fulfillment of environmental conditions and requirements represents a license to allow the flow of goods and services to all world markets.
- Failure to meet environmental conditions and requirements means pressure on exporters to reduce prices.
- Providing technical and financial assistance from developed countries to developing countries in the environmental field to ensure consumer protection.

In summary of the aforementioned, the environmental conditions and requirements within the WTO framework for environmental protection are represented in three dimensions, which are legislation and laws, the international labeling of environmental compatibility, and finally the charters related to importers or buyers.

- **Legislation and laws:** are those set by governments to ensure compliance with the government's directive in the field of environmental protection and

its implementation as a mandatory requirement when the exporter wishes to enter the state's markets with penalties imposed on individuals and companies who violate such legislation and laws in order to ensure consumer protection (U.S office of Technology Assessment,2016).

- **Eco-labeling of environmental consistence:** The environmental mark is a certificate that guarantees an environmentally friendly and harmless product to the consumer, and is considered a prerequisite in Western Europe, and the conditions and requirements of this certificate differ from one country to another at the international level. This certification provides information about environmentally relevant product specifications and helps the consumer to choose a safe and environmentally friendly commodity (sorsa,2015).

It should be noted that environmentally friendly certificates are not the last resort, as the importer may require additional requirements otherwise. Nevertheless, this certificate is the beginning of negotiations between the exporter and the importer. The ECO Text 100, ECO Text 1000 and EU Flower are among the most environmentally friendly certifications at the global level. Obtaining environmentally friendly certifications secures the country's share in the export market, improves product quality, realizes more financial savings and improves environmental performance. By eliminating dangerous substances and poisoning.

It also justifies the use of water, energy and raw materials and reduces environmental pollution (Hanley, shogren, white,2016). Therefore, the choice of certification should be characterized by general acceptance and meet common requirements among importers. This requires analyzing market requirements and selecting an environmentally compatible certificate that is characterized by simple criteria when implemented, more sustainable and less expensive (World Resources Institute,2016).

- **Code of Conduct:** It includes the standards and conditions specified by the importer, which are optional and not mandatory conditions in the form of a contract between a specific company as an importer and exporters of this company. Here, exporters are obligated, through signing a contract with the company in all their dealings, to comply with environmental requirements in different fields, for example, health, women and children labor, compensation, wages, salaries, overtime hours and racial

discrimination against workers at work. This is in addition to adherence to the standard for obtaining a corporate social responsibility certificate and its role in serving the surrounding community, which is known as SA 800, as part of the commitment to the terms of the charter (WTO,2015)

The developing countries need to implement this charter more than the developed countries do in order to promote the increase in their exports abroad, enter the world markets, and improve their living standards, especially labor markets and low incomes, in order to meet the requirements of developed countries in the field of environment.

Criticism of the World Trade Organization regarding its protection of the environment.

The World Trade Organization calls for freedom of trade without any other considerations. It is concerned with commercial interests without the goals of development, as it opened its markets to multinational companies without taking into account the environmental dimension to protect the health of individuals, plants and animals. It also caused the widening of the social gap between the poor and the rich, which leads to the spread of Poverty and unemployment. This indicates that the World Trade Organization is far more concerned with trade issues than environmental issues.

The future of environmental protection within the World Trade Organization is closely related to its ability to reconcile the conflicting environmental interests of developing and developed countries, which is difficult to achieve at the present time due to the dominance of the logic of power and the absence of moral and ethical rules considerations.

The developed countries preferred to focus on these environmental issues, without taking into account the limited economic capabilities of developing countries that cannot abide by all the new normative conditions for the environment.

Fourth: 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 (2013-2018). 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 2624 thousand hectares in 1994 by an annual positive changeable average rate of 2.6%.

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 3.4%.

Table 1 data refer to the increase of total electricity consumption in the Egyptian economy by 720.4 thousand metric tons coefficient during the pre-agreement first period. It increased from almost 2924.5 thousand metric tons coefficient in 1989 to about 3644.9 thousand metric tons coefficient in 1994 by an annual positive changeable average rate of 3.5%.

Table 2 shows after the WTO agreement implementation, the total arable lands increased by 26 thousand hectares as it increase from almost 2817 thousand hectares in 2013 to about 2843 thousand hectares in 2018 by an annual positive changeable average rate of 2.8%.

The total energy consumption of the Egyptian economy has increased in the post-WTO agreement implementation by 10939.4 thousand metric tons oil coefficient. It increased from almost 35223.4 thousand metric tons coefficient in 2013 to about 46162.8 thousand metric tons coefficient in 2018 by an annual positive changeable average rate of 4.5%.

Table 2 data refer to the increase of total electricity consumption in the Egyptian economy by 1427.1 thousand metric tons coefficient in the post WTO-agreement implementation. It increased from 3812.5 thousand metric tons coefficient in 2013 to almost 5239.6 thousand metric tons coefficient in 2018 by an annual positive changeable average rate of 5.1%.

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 World Resources Institute data, 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	%
2013	2817	-	-	35223.4	-	-	3812.5	-	-
2014	2820	3	0.10	37183.9	1960.5	5.6	3982.1	169.6	4.5

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	%
2015	2824	4	0.14	39049.2	1865.3	5.0	4260.2	278.1	7.0
2016	2830	6	0.21	41848.4	2799.2	7.2	4556.1	295.9	7.0
2017	2834	4	0.14	44489.7	2641.3	6.3	4856.9	300.8	6.6
2018	2843	9	0.31	46162.8	1673.1	3.7	5239.6	382.7	7.3

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

World Bank, world development indicators,2019

Fifth: 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 (1989-1994) and (2013-2018). It shows the WTO agreement implementation contributes to the increase of the total annual average of the arable lands in the Egyptian environment by 0.2%. The pre-agreement rate estimated almost 2.6% compared to 2.8% in the post-agreement implementation period. The total annual average of the arable lands grew by 393.5 thousand hectares after the agreement implementation. It reached about 2434.5 thousand hectares in the pre-agreement implementation compared to about 2828 thousand hectares after its implementation.

The total annual average of energy consumption grew by about 1.2%. In the pre-agreement implementation, the rate estimated by 3.4% annually compared to about 4.6% after its implementation. The total annual average of energy consumption grew by 7733 thousand metric tons after the agreement implementation. It grew by about 32927 thousand tons before its

implementation compared to about 40660 thousand tons after its implementation.

The total annual average of electricity consumption grew by about 1.7% annually. In the pre-agreement implementation, the rate estimated by 3.7% annually compared to about 5.4% after its implementation.

The total annual average of electricity consumption grew by 1154 thousand metric tons after the agreement implementation. It reached 3297 thousand metric tons before the agreement implementation compared to about 4451 thousand metric tons after its implementation.

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	2828	393.5	-
The annual average change rate of the total cultivable land	2.6	2.8	0.2	-
Total energy consumption from all sources in the Egyptian economy				
The annual average of the total energy consumption (thousand metric tons equivalent)	32927	40660	7733	-
The annual average change rate of the total energy consumption	3.4	4.6	1.2	-
Total electricity consumption in the Egyptian economy				
The annual average of the total electricity consumption (thousand metric tons equivalent)	3297	4451	1154	-

Indicators	Before the application of the WTO Agreement	After the application of the WTO Agreement	annual change	
			increase (+)	decrease (-)
The annual average change rate of the total electricity consumption	3.7	5.4	1.7	-

Source : Calculated from data tables 1 and 2

Sixth: Conclusion and Policy Implications.

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. Both the GATT and the World Trade Organization dealt with the issue of environmental protection in a limited way and not broadly because their main goal is to liberate trade from all obstacles and restrictions.

The GATT or the World Trade Organization did not take into account environmental protection mechanisms, whether preventive or financial mechanisms, due to the constant focus on liberalizing international trade without giving much importance to the environment, in other words, preferring trade rules over environmental ones.

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 4.6% and 5.4% successively while the arable lands grew by 2.8%.

In light of the previous research results, some recommendations can be introduced, the most important of which are the following: -

- All countries and organizations urged to participate and join any gathering aimed at protecting the environment and the ratification of international and regional conventions that are in the interest of the environment.
- Protecting the environment is a right for present and future generations, so it must be made an essential part of the international trade rules.

- Reconciling between international trade rules and environmental protection rules to reduce the contradiction in the relationship between trade and the environment.
- The necessity of working to establish mechanisms that guarantee the protection of the environment and the achievement of sustainable development without negatively affecting the environment, and these mechanisms are represented in the preventive mechanisms that include the principle of environmental protection and the precautionary principle, and the financial mechanisms that include the polluter impulse principle and tax incentives.
- Take immediate economic and legal measures to prevent the transfer of unclean technology that negatively affects on natural resources, available energy, or activities polluting the Egyptian economy.
- Environmentally clean technology must be applied through the provision of technical and financial support for it from the government side, in order to limit the increase in pollution activities in the various economic sectors.
- Effective cooperation between Egypt and other developing countries in order to pressure the developed countries in order to participate in all negotiations related to setting, amending and updating the environmental conditions and standards in the WTO agreement, because developing countries are the most negatively affected by these environmental standards.
- Finally, Egypt, with its strong relations with most developed countries, should urge developed countries to transfer clean and environmentally friendly technology to developing countries in order to help these countries to pursue sustainable development in the long term.

- Future studies and research prospects.

This research is an attempt to reveal the impact of the WTO agreements on some environmental indicators in Egypt, and despite the difficulty of research in both theoretical and analytical sides, the researcher tried to give an idea about the environmental concepts and the conflict between them and

the WTO agreements and the relationship between them. What this topic acquires is to open the prospects and visions for other more detailed and in-depth research and studies in the future, enabling us to enrich its various aspects by deepening the research by strengthening or modifying the findings reached or the possibility of dealing with the topic on the other hand, and the truth is that every element of the research reaches to be a topic A future study, which represents problems for other research in the future, such as:-

- The impact of the environmental dimension in the WTO on the competitiveness of Egypt's foreign exports.
- The impact of the environmental dimension in the WTO in achieving economic growth in Egypt.
- The impact of environmental standards and conditions in the WTO agreements on Arab foreign trade.
- The importance and role of the environmental dimension in the World Trade Organization in how to achieve sustainable economic development for the Arab countries.

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