

POTENTIAL ECONOMIC IMPACTS OF ETHIOPIAN RENAISSANCE DAM ON EGYPT

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ABSTRACT

The issue of the Nile water for Egypt is the issue of "life or death", and one of the issues of the conflict that was raised between Egypt and the Nile Basin countries on water resources through the past three decades, as a result of absence of Egypt from Africa during this period, and the entry of the U.S. and Israel to the Nile Basin countries and manipulation of the issue of water security. The issue of water security is no less important than national security, where the concept of national security for Egypt is no longer based on the strategic side alone, but it also includes water security. In the regional and international variables and the successive developments that are witnessed by the world since the end of the eighties and nineties, Egypt is facing a real challenge which is the entry of new forces (Israel - United States - World Bank) to the area of the Nile Basin countries, and the launch of new concepts, including water pricing, water privatization, and exchanges of water by these forces, which may lead to a conflict among these countries in the coming years.

The Declaration of Ethiopia with some of the Nile Basin countries recently and individually about water diversion of the Blue Nile River to create a "Renaissance Dam" on its lands, is out of the ordinary regionally among the Nile Basin countries legally and on the ground because of the potential negative impacts of Renaissance Dam construction of Egypt and Sudan. In light of the above, the research problem lies in the potential negative political and economic effects on Egypt, especially water security as a result of the construction of the Ethiopian Renaissance Dam. The research aims to identify the benefits and potential risks of building Renaissance Dam in Ethiopia, and to clarify the potential political and economic effects on Egypt especially water security. The research ends with displaying the most important results that have been reached, then the presentation of suggestions to limit the worsening of water crisis among Egypt and the Nile Basin countries. To achieve the objectives of the research the quantitative and descriptive analysis has been used.

KEYWORDS: Egypt, Nile Basin Countries, Ethiopian Renaissance Dam, Economic and Political Impacts

INTRODUCTION

Without any doubt, the phrase of the famous historian Herodotus, "Egypt is the gift of the Nile" shows a lot of good Egypt has from the waters of the Nile River, and he did not think that one day there will be a problem in the water in Egypt. The problem of the Nile Basin countries is a multi technical, economic, political, legal and strategic dimensions problem of local, regional and international dimensions. The issue of the Nile water for Egypt is the issue of "life or death", and one of the issues of the conflict that was raised between Egypt and the Nile Basin countries on water resources through the past three decades, as a result of absence of Egypt from Africa during this period, and the entry of the U.S. and Israel to the Nile Basin countries and manipulation of the issue of water security. The issue of water security is no less important than national security, where the concept of national security for Egypt is no longer based on the strategic side alone, but it also includes water security (Ayman ElSayed Abdul Wahab, 2004). The conflict has increased since the beginning of the nineties on water resources, especially in the Middle East, where the limited resources of water, which are concentrated in the basins of major rivers such as the Nile River. With the great technological development that is witnessed by the world, especially since the nineties, rates of development, that rely on natural resources and one of the most important natural

resources is water, which has become a strategic commodity due to the lack of alternatives in the time energy has several other alternatives, increased..

In the light of this, the issue of preserving water resources and maximizing the benefit from them has the priority in the national security issues, particularly in Egypt. The Nile River is the longest river in the world; which runs from south to north, 6695 km long and consists of two branches, White Nile that is fed by Lake Victoria, and the Blue Nile, which constitutes 85% of the river water and is fed by the Ethiopian plateau, and it is shared by ten countries which are: Ethiopia, Congo, Kenya, Eritrea, Tanzania, Rwanda, Burundi, Uganda, Sudan, and Egypt. These countries differ in their dependence on the Nile, where Egypt is the most dependent country on the waters of the Nile, and therefore it was natural for the concept of water security to extend to the Egyptian national security and not compromising Egypt's share of water which is assessed annually as 55.5 billion m³ of the total Nile water amounting to 84 billion m³, where 85% of the waters of the Nile comes from Ethiopia, according to the legal agreements that are governing Egypt's assessment to its share annually, including the 1929 Agreement. In the regional and international variables and the successive developments that are witnessed by the world since the end of the eighties and nineties, Egypt is facing a real challenge which is the entry of new forces (Israel - United States - World Bank) to the area of the Nile Basin countries, and the launch of new concepts, including water pricing, water privatization, and exchanges of water by these forces, which may lead to a conflict among these countries in the coming years due to the internationalization of the issue outside the regional scale and thus adding other burdens to the Egyptian decision-maker, which is a direct threat to Egyptian national security (Osama El Ghazali Harb,2009).

The Declaration of Ethiopia with some of the Nile Basin countries recently and individually about water diversion of the Blue Nile River to create a " Renaissance Dam" on its lands, is out of the ordinary regionally among the Nile Basin countries legally and on the ground because of the potential negative impacts of Renaissance Dam construction of Egypt and Sudan, where the relation of the Nile Basin countries in terms of each country's share of the waters of the river is organized by agreements and treaties that are concluded among the Nile Basin countries, including the agreements 1902,1929, 1959, and under which no country of the Nile Basin countries can do any actions or take any decisions individually about the Nile water without the approval of Egypt and Sudan, in violation of the rules of international law, and harming others in the application of international treaties (Ayman Salama,2009).

In light of this, Ethiopia's decision to build the Renaissance Dam without obtaining the approval of Egypt and Sudan is an abuse for all agreements on the waters of the Nile, as well as the principles of international law. The dispute over the waters of the Nile River has increased when Burundi joined the five other countries - Ethiopia, Kenya, Uganda, Rwanda and Tanzania - to the signing of the new framework agreement (Entebbe deal) in 2011, in order to distribute the waters of the Nile River, which Egypt has refused to admit, as Egypt asked officially the Ethiopian side to provide all the data about the suggested Renaissance Dam on the Blue Nile in Ethiopia in the context of the evaluation of the project accurately and the determination of its negative effects on the Nile River, especially at the states of downstream, Egypt and Sudan, but Ethiopia rejected because Egypt did not sign the new framework agreement under which it gives up its right to veto on the distribution of the waters of the river (Hassan Nafaa,2010). The construction of the Ethiopian dam is likely to be a political response because Egypt and Sudan did not sign on the new framework convention of the Nile Basin countries. The threat of the establishment of the Renaissance Dam in Ethiopia is considered one of the papers of pressure on Egypt because of the new foreign policy after January 25 revolution that relies on independence, and therefore there are attempts to restore Egypt within the framework by some regional and world powers. In light of this, Egypt has many

important papers to manage this issue, with its historical dimension; Egypt has institutions that have experience in management, both at the diplomatic level, or by using the soft power through Al-Azhar and the Church (Sally Hany,2005).

Research Problem

In light of the above, the research problem lies in the potential negative political and economic effects on Egypt, especially water security as a result of the construction of the Ethiopian Renaissance Dam, which means that Egypt did not refuse that Ethiopia establishes the Renaissance Dam, but to put it under pressure by all means to avoid or limit the potential negative effects of construction of the Renaissance Dam on its water share. The research problem lies also in knowing the nature of the water crisis of the Nile Basin countries, Is it political, economic or technical crisis? And how can it be handled? What are the options that are available to the Egyptian decision-maker and their implementation mechanisms? What is the economic situation of the Nile Basin countries and their economic relation with Egypt? And, finally, what are the Israeli role and the American role and the World Bank's role in water conflict among Egypt and the Nile Basin countries?

Research Objectives

The research aims to identify the benefits and potential risks of building Renaissance Dam in Ethiopia, and to clarify the potential political and economic effects on Egypt especially water security and then the economic situation of the Nile Basin countries and their relations with Egypt can be addressed, and knowing the determinants of water conflict among Egypt and the Nile Basin countries, whether they are economic or legal. The research also aims to clarifying the Israeli and American roles and the role of the World Bank in the water conflict among Egypt and the Nile Basin countries, and the research ends with displaying the most important results that have been reached, then the presentation of suggestions to limit the worsening of water crisis among Egypt and the Nile Basin countries.

Research Methodology

To achieve the objectives of the research the quantitative and descriptive analysis has been used through the description of the nature of the water crisis of the Nile Basin countries and knowing if it is a political, economic, or technical, crisis along with the use of certain quantitative indicators in a statement of the economic situation of the Nile Basin countries and their economic relations with Egypt, with the use of books and scientific studies and researches that are closely related to the subject of the research.

Research Terms

The most important concepts and terminology that are relevant to the subject of research can be defined as the following:

The Concept of Water Security

The concept of water security is a component of the concept of national security, and is related to the concept of "water balance" which means the balance between the total traditional and unconventional volume of water resources, that is available in a given time period, and the total volume of necessary water requirements to meet the different needs. Water Security also means the ability of the state to provide the necessary pollution-free water for drinking and various uses in the fields of agriculture, industry and others with a minimum guarantee of them now and in the future, which means supply response of the available water resources upon request, and when water supply drops in comparison with demand, the level of water security is reduced and vice versa.

Water Risk

Is the situation where the availability of fresh water is between 1000 - 1500 m³ per capita annually, putting the country in a situation of water risk.

Water Deficit

Is a situation where the availability of fresh water is between 500 - 1000 m³ per capita annually, putting the country in a situation of water deficit.

The Concept of Water Policy

Is the framework through which the management of water resources is done in the light of a set of rules governing these activities, both internally and externally.

The Limited Water Resources

Water resources mean the total available of water sources to the state, traditional and not traditional, in a certain period of time. It differs according to the standard of measurement, and generally there are multiple indicators and measures that can be relied upon to determine the status of limited water resources, including quantitative, qualitative and economic indicators.

Research Plan

The research plan is divided into seven parts other than the introduction, namely:

First: Ethiopian Renaissance Dam between the benefits and potential risks.

Second: The potential economic effects for the establishment of the Ethiopian Renaissance Dam on Egypt.

Third: The economic relations among Egypt and the Nile Basin countries.

Fourth: The economic determinants (limited water resources) of the water conflict among Egypt and the Nile Basin countries.

Fifth: Legal determinants of water conflict among Egypt and the Nile Basin countries.

Sixth: The role of Israel, America and the World Bank in the water conflict among Egypt and the Nile Basin countries.

Seventh: Results and Recommendations.

FIRST: ETHIOPIAN RENAISSANCE DAM BETWEEN THE BENEFITS AND POTENTIAL RISKS

The Renaissance Dam or the Grand Millennium Dam is on the Blue Nile in Benishangul-Gumuz near the Ethiopian-Sudanese borders, at a distance of about 20 km. With the completion of its construction, it becomes the largest hydroelectric dam in the African continent, and the tenth in the list of the largest global electricity-producing dams, and it is one of the three dams in Ethiopia to generate hydroelectric power. Studies indicate that its height would be about 145 meters, while its length would be about 1,800 meters, with a storage capacity of about 74 billion cubic meters of water, and will contain 15 units for the production of electricity, the capacity of each is 350 MW to produce about 5000-6000 MW of electric power. The construction of the Ethiopian Renaissance Dam has been assigned to the Italian company "Salini", and is expected to take 4 years that end in 2017. Studies also indicate that the Renaissance Dam will have positive effects on

Sudan through the control of floods that hit it , especially at Roseires Dam, and the Blue Nile silt storage, leading to prolonging the life of the dams in Sudan as well as the High Dam in Egypt (Mona Abu Sekeen,2010).

In contrast to the advantages, the construction of Renaissance Dam may cause dumping about half a million acres of cultivated lands and the displacement of about 30 thousand citizens from the dam construction area, besides losing ,Egypt and Sudan, a large amount of water ranging from 15 to 25 billion cubic meters especially in the first period of operating Renaissance Dam because of the period that is required to fill the dam that will need large amounts of water from the Blue Nile, which ends to Sudan and then Egypt (the downstream states), so it is expected that two countries" share of the Nile flow will decline significantly during that period.

The studies about the soil in Ethiopia also indicate the inadequacy of the soil to retain water for long periods of time due to the nature of the limestone, which increases the likelihood of the collapse of dams in this region (Mohamed Salman Tayea, 2005). Since the launching of Renaissance Dam in the light of these studies has likely one of two results: Ethiopia enters in financial cost it can not provide with its weak economy, or that third parties ensure to pay this cost knowing that the project will not be successful economically, but they aim at obstructing development plans in Egypt and influencing its water security, in addition to the potential increasing risk of Renaissance Dam including the increase of the chances of volcanoes and earthquakes in the region of the dam's reservoir, besides the increase of the chances of collapse and cracking of Renaissance Dam as a result of geological factors, the speed of the rush of waters of the Blue Nile, which may lead to the sinking of the Sudanese villages and towns, especially Khartoum, and some cities on the shore of the Nile and a large part of Egyptian lands.

The lack of water storage behind the High Dam in Egypt would negatively affect the generated electric power of the range of 20, 40%, according to the views of experts in the field of water (Metwally Salem, 2010). The financing requirements of the construction of the Renaissance Dam outweigh the financial possibilities of Ethiopia, where Ethiopia is classified as one of the poorest countries in accordance with classification of the Human Development Report issued by the United Nations Development program. The World Bank database indicated that the Ethiopian GDP did not exceed dollars 30 billion in 2011, and that the average annual income per capita was about 370dollars, which is among the lowest incomes per capita in the world and the estimations of the cost of Renaissance Dam refer to that it is ranging between 5-8 billion dollars, China has announced that it will bear the dollars 2 billion, while the World Bank rejected to participate in the financing of the dam due to disputes among the Nile Basin countries on the establishment of such dams, but there's severe keenness on the part of some countries that are hostile to Egypt's policy to pay and finance the construction of this dam.

This confirms that the aim behind the construction of the dam is political, not economic as a result of the interventions by other countries from outside the territory of the Nile Basin, that are financing the expenses and the costs of establishing the dam in order to reduce Egypt's water share and increase its social and economic problems after the January 25 revolution and shows it in a weak position for its inability to protect its historical interests that were not affected since the sixties of the last century with the construction of the High Dam in Egypt. Finally, it is expected that there will be an Israeli Ethiopian agreement, and Israeli companies can likely manage electricity of the potential Renaissance Dam, which negatively affects Egypt and Sudan (Hamdy Abdel-Rahman,2010).

SECOND: THE POTENTIAL ECONOMIC EFFECTS FOR THE ESTABLISHMENT OF THE ETHIOPIAN RENAISSANCE DAM ON EGYPT

There is no doubt that the Nile River remained the source of life in Egypt throughout its long history, and thus the dominant feature of the Egyptian economy is that it is an agricultural economy, where the agreement of Nile Basin

countries that is signed in 1929 identified Egypt's share of Nile water as 55.5 billion cubic meters per year, and on this basis community-based and agricultural projects have been planned in the light of this share, and then reducing this share will affect the Egyptian economy through the following aspects:

Decline in the Agricultural Area

Estimations refer to that if Ethiopia built the Renaissance Dam, Egypt's share of Nile water would be reduced by about 9 to 12 billion m³, which would lead to stopping, land reclamation projects in Egypt because of the deficit in the amount of available water, and therefore would stop agricultural areas in Egypt at the current rate, that are estimated as about 8 million acres. As the agricultural areas available for Egypt do not suit the increasing number of population of about 92 million people, which can increase in the coming years in light of a population growth rate that is estimated as about 1.9% annually. As it is known, the stability of the agricultural area with the growing population will greatly affect the size of agricultural and food products in Egypt. In spite of Egypt's current available water share, it imports about 60% of the food from the outside, what would it be if the water share of Egypt fell in the future and the expansion of agricultural areas and desert land reclamation stopped? As the construction of Renaissance Dam is likely to result in stopping the cultivation of million acres of existing agricultural lands in Egypt, which will lead to a growing deficit in the Egyptian trade balance, which in turn suffers from constant deficit because of the increasing food import bill (Mona Abu Sekeen,2010).

The High Unemployment Rate

The loss of Egypt's areas of current agricultural lands, or stopping its projects to reclaim desert lands, means the loss of a large number of its citizens' employment opportunities in the agriculture sector, which accommodates currently about 6.5 million workers, which leads to increasing rates of unemployment in the agricultural sector. It should be noted that the unemployment rate in Egypt under a high growth rate (7%) amounted to about 10%, how will the situation be if the area of agricultural lands fell after the construction of the Ethiopian Renaissance Dam? Certainly the unemployment rate will increase significantly and thus the agricultural sector would be employment repellent under the problems of getting the water that is needed for agriculture.

Increasing Water Deficit

That the establishment of the Ethiopian Renaissance Dam will lead to increasing Egypt's water problems. Statistics indicate that the individual share of water in Egypt is about 750 m³ annually, which is below the world average of water consumption per capita which is about 1,000 m³ annually. It is expected that the individual share of water in Egypt will decline to 525 m³ per year in 2050, in light of the stability of Egypt's share of Nile water. But under the assumption of the construction of the Renaissance Dam in Ethiopia and the reduction of about 9 or 12 billion m³ annually of Egypt's share of Nile water, it means that its current rates would be lower with a percentage ranging between 16.3 and 21.8%, which could lead to new economic burdens on the shoulders of the Egyptian economy, which are the costs of resorting to desalination of sea water to cover the deficit in the drinking water, or re-treatment of wastewater for using it in irrigation of agricultural lands. These procedures that are used for desalination or re-treatment will have a negative impact on obstructing plans of financing development in Egypt in light of what it is suffering of social and economic problems (Metwally Salem,2010).

Reducing Electric Power

Saving energy has represented a major challenge for Egypt for years, Egypt has adopted a policy since 2008 that will work on the elimination of energy support, which is a barrier on the general budget of about 120 billion pounds (about

17.2 billion U.S. dollars) annually, where this policy of cancelling energy support focused on energy-intensive industries, along with raising the prices of fuel for cars and homes in order to rationalize the use of energy, which worsened significantly after the revolution of January 25. Thus, the establishment of the Ethiopian Renaissance Dam will lead to the decline of Egypt's share of water, which in turn leads to lower electricity produced by the High Dam, which provides proportion of 10 to 12% of the energy produced in Egypt.

The impact on the share is to put the Egyptian economy under pressure in its current circumstances and during the next phase. As the price that is paid financially and morally by Egypt to build the High Dam in the sixties was great, and it is therefore its right to get a return of this cost over the long years. Reducing the High Dam's share of electricity production means its need to make up from other sources which may be of high economic cost that Egypt can not provide, other than water sources in electricity generation are clean when it is compared to other alternatives. Thinking of alternative sources of electricity that is obtained from the High Dam may take a long time, sources such as wind or solar energy or waste recycling (Hamdy Abdel-Rahman,2010). Egypt's resort to the use of nuclear energy to generate electricity may be full of risk and need comprehensive studies and international approvals. The resort to the sources of fossil to generate electricity through the oil and gas requires high costs in the time Egypt suffers from a significant decrease in oil and gas production, as Egypt imports more than it exports of oil and gas because of the wrong export policies Egypt adopted before the revolution.

THIRD: THE ECONOMIC RELATIONS AMONG EGYPT AND THE NILE BASIN COUNTRIES

The Current Economic Status of the Nile Basin Countries

Geographical area of the ten Nile Basin countries extends to occupy 6% of the land area, and maintains 6.2% of the world's population, accounts for 4.3% of the international labor force. Moreover, their share of global output is about 0.6%, while their relative share of international commodity trade is about 0.4%, and their share of international commodity exports is about 0.3%, and their share of international commodity imports is about 0.6%. , and their share in international service trade reached about 0.8% of the global total in 2010. The weakness of the share of the ten Nile Basin countries of the international economy is associated with their low social and economic status because of the high rates of poverty, unemployment, high rates of infant mortality, deaths due to AIDS and tribal conflicts that have resulted in civil wars, which made them get a proportion of 13.1% of international development assistance in 2009. Some Basin countries also lead the list of aid recipient countries, especially with the drought in the Horn of Africa countries. Although the Nile Basin countries enjoy various natural resources, metal, animal, and agricultural, these countries have attracted only about 0.9% of foreign direct investment (FDI) globally in 2008. It was associated with the status of internal instability in most of these countries, which contributed to the poor utilization of resources and exporting their products in the form of raw materials and the lack of coverage of their food needs leading to the import of a large part of their food, equipment and energy, especially oil, which made eight out of ten suffer from a great trade deficit excluding Sudan and the Democratic Republic of the Congo recently (Ayman ElSayed Abdul Wahab,2009).

The NileBasin countries trade is linked to large European countries especially Italy, the Netherlands, Germany, Belgium and France as well as it is linked to Asian countries, the most notably are China, Japan and India as well as America. With less intra-trade among them, although they are related to regional economic groupings, especially COMESA. During 2008, the total GDP of the ten Nile Basin countries at the official exchange rate, according to the World Bank data, was about dollars 336.2 billion, representing 0.6% of the international total GDP of 60.1 trillion dollars. Egypt has led the Nile Basin countries in terms of the output that is estimated as about 162.8 billion dollars, followed by Sudan with about 58.4 billion dollars, Kenya with about 34.5 billion dollars, Ethiopia with about 26.5 billion dollars, in the fifth

place was Tanzania with about 20.5 billion dollars, followed by the DRC with about 11.6 billion dollars, Rwanda with about 4.5 billion dollars, and Eritrea with about 1.65 billion dollars, and in the tenth place was Burundi with about 1.16 billion dollars (Mohamed Nabil ElShimy,2009).

The majority of the basin countries also achieved among 2002-2010 growth rates even though they were good, they were volatile except for Eritrea, which saw a decline of growth in some years. However, the high growth rates of countries of the basin have not been reflected on the lives of the population due to the concentration of wealth significantly in favor of the rich which made their benefit from growth greater. This is beside the decline in the level of GDP sectors, agriculture is still lagging behind, and most industries are extractive or transformative or with limited technological component that can not in the most compete internationally, and the services are low-level and has the governmental nature in many countries of the basin.

The average of the citizen's share of GDP in any of the Nile basin countries did not reach the global average in 2008 of 10,400 dollars, where the highest number of the citizen's share of GDP in the Nile basin countries was in Egypt with about 5,400 dollars per person a year, followed by Sudan with about 2,200 dollars per person, Kenya with about 1,600 dollars per person, 1,300 dollars per person in Uganda, 1,300 dollars per person in Tanzania, 1000 dollars in Rwanda a year, 800 dollars per person in Ethiopia annually, 700 dollars in Eritrea, 400 dollars per person in Burundi, 300 dollars per person a year in the DRC which is the lowest share of the individual of GDP among the Nile Basin countries. The low share of GDP and national income has been associated with the high rates of poverty in the Nile Basin countries, which were the lowest in Egypt with 20% of the population according to data in 2009, 35% of the population of Uganda to the poverty rate according to data in 2006, and 36% of the rate of poverty in Tanzania according to data in 2004. The Food and Agriculture Organization also monitored seven countries of the Nile Basin countries within the 36 countries of the world which are facing a food crisis, namely: Eritrea, Burundi, DRC, Ethiopia, Kenya, Sudan and Uganda because of civil wars in these countries international. The ten Nile Basin countries have occupied a late position in most international economic indicators, , whether on the map of GDP or international commodity trade, international service trade, or foreign direct investment incoming or outgoing, as well as portfolio investments internationally, and they have low share in oil, natural gas and coal international trade, and in the electricity production and consumption (Nabil Abdel Hamid,2009).

Trade Reality among Egypt and the Nile Basin Countries

Egypt has been associated historically in trade relations with the countries of the Nile Basin through the ports of those countries on the Red Sea, and the economic relations have witnessed interest during the period of the sixties of the last century through the Egyptian offices of Al-Nasr Export and Import in many African countries, and the Egyptian construction companies" projects in those countries within the framework of support which was provided by the Egyptian regime for the liberation movements in Africa during the Nasiriyah era. Egypt has also held several trade agreements with African countries in the last decades. However, the size of Egypt's trade with the African continent in general was limited when it is compared to the size of its trade with other continents, especially Europe, North America and Asia in the last years along with the Arab region (Adel Abd Al Razik,2005). Transport difficulties remained the first barrier to increase trade relations, especially with the Interior countries with land borders, as well as guarantees of payment of the value of transactions and competition by other countries' products in African markets, especially the Chinese products which are cheaper and better making it more difficult to increase the volume of trade exchange.

However, Egypt's accession to the COMESA group, which includes the countries of Eastern and Southern Africa, which means the entry of Egyptian exports to those countries without customs, that has contributed to the increase of

Egyptian trade with those countries in part, which is a group that includes nine countries of the Nile Basin countries. The relative share of Egypt's trade with the countries of the Nile Basin is low when it is compared to the Egyptian trade with the countries of the world, during the period among 2000-2010 the share of basin countries of Egyptian exports to countries around the world ranged from 0.9% to 0.3%. The relative share of Egypt's imports from the Nile Basin countries also ranged from 0.4% to 1.7% of Egypt's commodity imports during the same period. In 2008, as the owner of the largest share of Egypt's trade with the Nile Basin countries, the share of Egypt's trade with the countries of the Nile Basin was 1.3% of the total commodity trade of the Egyptian Foreign Ministry, and the share of exports to the basin countries was 3% of the total Egyptian exports. Sudan has acquired most of the exports of the Nile Basin. The share of Egypt's imports from the Nile Basin countries declined to 0.5 percent of its total imports from countries around the world. 2008 represents a leap in Egypt's trade with the Nile Basin countries, when Egypt has achieved trade surplus with the Nile Basin countries amounted to about 520 million dollars, despite Egypt's trade deficit with most regions of the world, both in Europe, Asia and the Americas (Metwally Salem,2010).

FOURTH: THE ECONOMIC DETERMINANTS (LIMITED WATER RESOURCES) OF THE WATER CONFLICT AMONG EGYPT AND THE NILE BASIN COUNTRIES

Water resources mean the total available of water sources to the state, traditional and not traditional, in a certain period of time. It differs according to the standard of measurement, and generally there are multiple indicators and measures that can be relied upon to determine the status of limited water resources, including quantitative, qualitative and economic indicators. The relation among the water situation in the Nile Basin countries can be analyzed through the use of these previous indicators to check whether the Nile Basin countries suffer from limited water resources or not, as the following (Abdul Malek Khalaf Al-Tamimy,2008):

First: Quantitative Indicator of the Limited Water Resources

It is measured by two indicators: the first is that the individual's share of water is below the World poverty line, (1000 m³ / per capita a year), and the second is that the size of the available water and the supply of water is less than what is required for the use of water. According to the quantitative indicator, it could be said that the Nile Basin countries do not suffer from limited water resources, but they have the advantage of plenty and the evidence for that, depending on the water poverty line indicator, is that all the countries of the basin exceeded the indicator as if water revenue was divided into equal divisions among them. The dependence of the Nile Basin countries on the Nile water is not equal, it becomes less with the direction of south where rainfall, rivers and lakes increase, and the degree of reliance on the Nile River increases in northern Sudan and up to its maximum in Egypt, which depends on the Nile in providing all the resources of surface water by almost more than 95% of the total water needs. It should be noted that all Nile Basin countries except Egypt has other water sources from inside or outside their lands other than the Nile River (Farrag Ezz Elldin,2006). Egypt is the only country of the Nile Basin countries that use almost all of its water resources and the needs of drinking water and food (water requirements) are expected to exceed the annual water supply. It means that Egypt is the only country, which suffers from limited water resources in the Nile Basin countries and that if its water needs were compared to its available renewable water sources (Mohamed El Sayed Elbeshry,2003). The conclusion is that all Nile Basin countries did not suffer from limitations in the water where they still use much less than their annual renewable water resources, and therefore there is limitation in the states of downstream while upstream countries enjoy availability of water resources.

Second: Qualitative Indicator of the Limited Water Resources

It is measured by the degree of water pollution and the consequent inability to use it, despite their availability in

large quantities. According to the qualitative indicator, the Nile water throughout its stream from the maximum of its sources into the High Dam has severe purity due to the extreme gradient of the river from the south to the north and its narrow stream in some areas and severe depth in other areas, all of which help the flow of water down and quickly and then they are not stagnant water swamps. So the river water in terms of quality is good, and we can say that there are no limitations in terms of quality (Mohamed Abu El Ela, 2007).

Third: Economic Indicator of the limited Water Resources

It is measured by the non-availability of necessary water facilities to transport and deliver water to users in homes, factories, due to economic poverty. The economic indicator is subject to several factors, including poverty and the proportion of the population, according to the Development Report issued by the World Bank in 2004, the Nile Basin countries are considered of the poorest developing countries, they are located except Egypt in the category of low-income countries. Egypt is the only country that fall into the category of middle-income countries. The case of extreme poverty, which is the main feature of the Nile Basin countries - except Egypt - has been reflected on the abilities of these countries on the provision of infrastructure that is related to water, where there is lack of the infrastructure needed to transport and deliver water to all its citizens as well as the lack of affordable coverage for sewage networks in most of those countries except Egypt. Thus it can be said that the Nile Basin countries are suffering from (aqueous poverty) in economic terms which means no availability of the necessary financial resources to construct the infrastructure system that is relevant to transportation, storage and delivery of water to the broad sectors of the peoples of those countries (Abdel Menem Balbaa, 2003).

In light of the review of the three indicators to measure "the limited water resources," it is clear that the Nile River Basin is rich with its water resources in terms of quantity and quality and, it is also very poor with its economic resources, and poor in its necessary organizational capacity to manage the water resources. Thus, the final result is the limited water resources in the Nile River Basin is due to the inability to use water on the one hand, and poor management and planning on the other hand. This limitation may also increase with time due to the influence of other factors, including: climate change, which may result in a rise in temperature in general, and the effects of environmental pollution, in addition to the large increase in the numbers of the population with the consequent economic pressures especially in the field of agriculture, to meet the growing food needs in the future. However interaction of these factors may lead to the phenomenon of international water conflict between the countries of the downstream (Egypt and Sudan), which suffer from limited water with the upstream countries which enjoy abundant water, but they suffer from poor economic resources to make use of the water. Egypt depends on more than 95% of its water, while Ethiopia needs 1% of the river water, Kenya nearly 2%, Tanzania 3%, Congo 1%, Burundi 5%, and Sudan 15% because the intensity of rainfall in these countries makes them in no need to the river water, which in the end leads to imbalance in the provision of water, creating a state of constant conflict over water (Fathy Ali Hussein, 2006).

FIFTH: LEGAL DETERMINANTS OF WATER CONFLICT AMONG EGYPT AND THE NILE BASIN COUNTRIES

It is worthy mentioning that there is no legal framework agreed-upon clearly to determine all procedural matters and legal affairs of the Nile Basin. Thus, the absence of the legal framework that is acceptable to everyone allows international water conflict among the Nile Basin countries. Several international agreements and treaties were held among the Nile Basin countries most of them were bilateral. There are more than ten international agreements and documents that are based on the organization and the use of the river water, including what has been signed in the colonial period by the

colonial powers as states that were contracting on behalf of their colonies at that time, and what has been signed after obtaining some countries their independence such as 1959 agreement that was signed between Egypt and Sudan (Eman Farid El Deeb,2007) . Among the most important signed agreements about the Nile Basin was Rome protocol on 15 April 1891 between Britain and Italy. The essence of the protocol was the commitment not to establish or implement any water projects on the Ethiopian - Sudanese Atbarah River Basin, without consultation with Egypt in advance.

On 15 May 1902, a treaty between Britain and Ethiopia was signed in Addis Ababa to demarcate the border among these countries and Sudan. It regulates the exploitation of water of the Blue Nile and the need for prior notification before starting on any projects by Ethiopia that will affect the flow of water. Britain and the state of Congo also signed on an agreement in London on May 9, 1906 in which the Congolese government pledged not to establish or allow the establishment of any works on the river or besides it, which would reduce the volume of water flowing into Albert Lake, unless it is in an agreement with the Sudanese government. This is beside the 1906 agreement among France, Britain, and Italy and the fourth item of which provides that these countries work together to secure the entry of the Blue Nile and its tributaries to Egypt. There is also an agreement in 1925 which includes a combination of exchanged letters between Britain, Italy in which Italy admits the acquired water rights for Egypt and Sudan in the water of the Blue and White Niles and undertakes not to make any constructions on them that will decrease the amount of water running into the Main Nile, in addition to the 1929 agreement between Egypt and Britain, which states: not to make ,without prior agreement with the Egyptian government, any irrigation works or generating forces or any action on the Nile and its branches or on the lakes, which stem from the Nile River, whether in Sudan or in any country under the British administration that would decrease the amount of water that reaches Egypt, modify date of arrival or reduce attributed in any way that harms the interests of Egypt, while maintaining Egypt's historical and natural right in the water of the Nile, besides the 1953 agreement that was signed between Egypt and Britain on behalf of Uganda regarding the establishment of Owen Dam at the outlet of Lake Victoria to generate electricity, and Britain has pledged that constructing and running the electric power station would not reduce the amount of water that reaches Egypt.

This is in addition to the 1959 agreement, which took place in Cairo between Egypt and Sudan as a complement to the 1929 agreement, which includes full control of Nile water reaching both Egypt and Sudan in the light of new variables that appeared on the scene at that time, which is a will to construct the High Dam. The agreement provides that: Egypt keeps its acquired right of Nile water which is about 48 billion m³ per year as well as the right of Sudan which is estimated as about 4 billion m³ annually, besides that the two countries agree that the establishment of the High Dam in Egypt and the Sudanese Roseires Reservoir on the Blue Nile. The agreement also provides to distribute interest of water from the High Dam, amounting to about 22 billion m³ per year on the two countries so Sudan gets 14.5 billion m³ and Egypt gets 7.5 billion m³, so the total annual water share for Egypt is about 55.5 billion m³ and about 18.5 billion m³ for Sudan. This is beside the agreement between Sudan and Egypt to establish projects to increase the river revenue in order to exploit the lost water in Al-Gabal sea, El-Zaraf sea, El-Ghazal sea and its branches and the Sobat River and its branches, that the distribution of interest of water and the financial cost of these projects are divided equally between the two countries. Finally 1991 agreement between Egypt and Uganda, which states that: Uganda respects what is stated in 1953 agreement that was signed by Britain on behalf of A Uganda which is an implicit recognition of 1929 agreement. It also states that regulatory water policy of Lake Victoria should be discussed and revised between Egypt and Uganda within the safe limits, without affecting Egypt's water needs(Ayman Salama,2009).

It is noted through these agreements that there is no a common collective agreement of all Nile Basin countries, and there is no international law that is governing them, and most of these agreements are old agreements of a bilateral

nature, so they do not enjoy general acceptance from all Nile Basin countries, which led to the declaration of some of the Nile Basin countries their rejection to these agreements after gaining independence, and then the need becomes urgent for a collective agreement among the Nile Basin countries. The legal framework that is being negotiated in the framework of the Nile Basin Initiative (NBI) has not been decided yet, despite multiple rounds of negotiation and the most recent negotiations were in Sharm El-Sheikh on April 14, 2010, which ended without reaching a final agreement on the legal framework and the basin countries were divided into two groups, states of downstream, Egypt Sudan and on the other hand "the final upstream countries " where the upstream countries do not recognize Egypt's historical rights of its share in the Nile Basin and the agreements that were concluded in the colonial period.

This has resulted in a situation of disagreement and conflict among the Nile Basin countries on the following points: the conflict over sharing common water in the Nile basin, and advocating the redistribution of water shares among the countries, because there is no general agreement that specifies criteria for sharing the Nile water except for the agreements of 1929 and 1959 that were signed by Egypt and Sudan (the downstream states) on the determination of the process of Nile River water revenue, besides the conflict over the extent of (Legality) of the previous agreements that were signed at the end of the nineteenth century and the first half of the twentieth century and the extent of their authority as a legal framework that is governing procedural matters and technical matters that are related to the river, where the Nile River upper countries stick to illegality of the agreements because they were not a member in them and they did not have their independence and on the other hand, the downstream countries (Egypt and Sudan) stick to both rules of " international inheritance of treaties", "acquired historical right ", in addition to the conflict over the extent of necessity of the requirement of prior notification when doing water projects in the Nile Basin by the upstream countries. The downstream countries, especially Egypt stick to the realization of the requirement of prior notification about all water projects in the Nile basin, while the upstream countries stick not to be restricted by the prior notification of any water projects they want to construct. In light of the foregoing, the tensions and the instability in the relationship among the downstream countries and the upstream countries increased (Mohamed Salman Tayea, 2007).

SIXTH: THE ROLE OF ISRAEL, AMERICA AND THE WORLD BANK IN THE WATER CONFLICT AMONG EGYPT AND THE NILE BASIN COUNTRIES

The Israeli Role

The role of Israel in the issue of water has old historical aspects that appeared in the early twentieth century at the hands of "Herzl" the founder of the Zionist movement in 1903 and the author of the book, the project of "Jewish state" when the idea of settling Jews in the Sinai and exploiting the underground water and the Nile water was suggested to Britain and was rejected for political reasons that were related to international economic conditions at that time. Israel emphasizes that water is the basis for the establishment of the Jewish homeland and water sources are the borders of that country. With the foundation of Israel, the slogan of "the borders of Israel from the Nile to the Euphrates" has been raised. After June 1967 war and the "Israeli" occupation of most of the surrounding water sources or streams in Syria, Lebanon, and the West Bank, the issue of water has turned to be one of the important elements in the arguments of Israel about the concept of security in the ongoing political settlement processes.

What is confirming the seriousness of the Israeli attitudes about the issue of Arab water what was stated by "Yitzhak Shamir" in March 1991, "ready to sign a treaty of banning weapons of mass destruction and accept the inspection of Israeli nuclear facilities in exchange for Israel's participation in the agreements for the redistribution of water in the region." Israel suffers a severe shortage of water sources, this shortage has increased after the intense waves of Jewish immigration from Eastern Europe and the former Soviet Union. According to the Israeli local sources, the Israeli water

sources do not exceed 1850 million m³, where the population increase in Israel caused decreasing the rate the individual gets from renewable fresh water per year to about 229 m³. It is expected that the rate will be decreased to 264 m³ per capita per year in 2025. Israel officially has declared a "state of drought" on the April 15, 1999, and its foreign minister at that time, urged European countries to help them to face the water crisis (Hamdy Abdel-Rahman, 2005).

The case of " Israeli water deficit " is not the result of one variable only which is limited renewable water resources per year in Israel, but it is the result of the interaction of a number of variables such as the natural increase of population, the constant flow of Jewish immigrants, the agricultural expansion, the increasing rates of industrial development, the environmental pollution, and others. This led to the resort of the Israeli policy to adapting Water militarization strategy on both internal and external levels. On the internal level, its control over the sources of water it captured by force is increasing. On the external level, its political behavior is characterized by seeking to control, directly or indirectly, the sources of surface water, to meet its increasing local needs (Mahmoud Mohamed Khalil,2003).

In the context of achieving the goals of the Israeli policy in the Nile River Basin, Israel adopts two different strategies to achieve the objectives of its expansion water policy, the first strategy is to seize Egypt's share in the Nile water, through buying from Egypt's share of Nile water about 1% of the revenue of the Nile. According to the constants of the Egyptian water policy which so far confirms the rejection of the Israeli proposals, Israel has adopted an indirect strategy to achieve its goals in the Nile Basin by trapping Egyptian policy in the Nile Basin, by following the strategy of "Containment" to besiege the downstream countries, particularly Egypt. This was reflected on the formulation of relations covering various fields, especially economic ones, which made it possible for Israel to penetrate the Nile Basin under the slogan of " pure financial and technical assistance," and that is by granting loans to some newly independent African countries for the development of economic resources and construction projects, or providing them with experts and offering grants to train Africans in the country. This is besides dealing with certain African groups in order to support their continuation in power or to expand its role in spreading political instability in some countries, in order to employ the upstream countries to the siege of downstream countries. Israel has been able to achieve a huge leap in its relations with African countries and to prove its strong presence both on the official diplomatic level, or on the level of military cooperation commercial and technical transactions, and Israel came out of the scope of isolation, and became an active competitor regionally (Saad Samir Eysa, 2004).

It should be noted that Israel in order to achieve its primary objective in seizing Nile Basin downstream countries it relies on three mechanisms which are: to encourage a new generation of new African leaders who belong to minorities in their own countries and are associated with the United States and of course has close relations with Israel, to besiege the Arab national security, particularly in Egypt and Sudan according to a strategy of "Pacific Alliance" which means holding alliances with other hostile countries and groups to the Arabs, and finally to adopt a policy of grants and training Africans (Munzer Khadam,2005). Eritrea also signed with Israel in February 1996 an agreement of military security, which has strengthened relations between Israel and Eritrea during the years 2001, 2002, where the Eritrea expanded in granting facilities for Israel that strengthened its presence in the south driveways of the Red Sea, and in particular the islands around these driveways (Abdul Malek Oda,2003).

Israel also played an active role in the conflict the Great Lakes region witnessed in 1994, both in Rwanda and Burundi or the DRC where the Israeli weapons came to those countries from Israel through official and unofficial channels, and the value of the exported weapons to states and militias in these areas is estimated as more than 600 million dollars during 2002. Israel has been able to maintain a permanent presence in Ethiopia, regardless of the nature of the ruling regime., Israel supplied Ethiopia with weapons and military equipment in the field of internal security and guerrilla

warfare as well as for training Ethiopian pilots in the Israeli air forces, besides bringing members of El-Falasha community from Ethiopia to Israel for the mass displacement of Ethiopians outside their country. There are many indicators of the Israeli presence in the Nile Basin countries at the level of technical and trade exchange, labor and agriculture. Israel has given attention to agriculture sector that exceeds its attention to other sectors as it is the main source of which are based on the exploitation of water in Lake Victoria and also Ethiopian projects around the headwaters of the Nile in the fields of agriculture and electricity. Trade relations become one of the indicators of the increase of the Israeli influence in the Nile Basin countries, especially in Ethiopia and Congo. Besides this trade, there is the establishment of joint chambers of commerce, aid and grants. It should be noted that the volume of trade exchange among Israel and the countries of Africa is more than a billion dollar (Saheb El-Rubaie,2002).

The American Role

The role of the United States in the area of the Nile Basin take only an indirect form, through working to "besiege" Egyptian and Sudanese Policies on regional level to serve the installation of American power politically and strategically in that region, and then boot to the role of Israeli through redrawing the map of regional balance in the Nile Basin region. This is besides working on redrawing the geological map of Sudan through following a foreign policy that aims to create a new Sudan that is loyal to the United States of America. The change of the U.S. direction after the Cold War towards the Nile Basin countries and its aim became integrating the continent in the global economy.

The aim of U.S. policy is to open new markets in different regions of the world, the most notably is the African continent as it is characterized by the presence of enormous opportunities for investment, open markets for American products besides other military and political objectives such as democracy, human rights and security, in addition to the employment of the non-Arab Nile Basin countries to use as a tool to put pressure on Egypt and Sudan as the two Arab countries against Israel (Hamdy Abdel-Rahman,2006). What explains the American interest of the water issue in the Nile Basin countries is its insistence on joining the membership of all water committees in multilateral and bilateral negotiations, which emerged from the Madrid Peace Conference in 1991.

The United States was keen on establishing relations with Ethiopia, which is one of the important objectives of the United States for being an important source of feeding water sources of the Nile River, where the basin of Abyssinia plateau rivers contributes 80% of the Nile water. This is besides the partnership between the two sides at the military, economic, political and commercial levels, and America's desire of direct cooperation with the new group of African leaders who took power in recent years, which represents a challenge to the Egyptian decision maker and its support for the secession of Sudan and its impact on the Egyptian water interests, as well as sharing agreement of wealth and power between north and south Sudan, which may adversely affect the water security of Egypt, and thus surround the Egyptian regional role in the regions of the Nile Basin, which affects the status of Egypt on regional and Arab levels (Mohamed Salman Tayea,2009).

The Role of the World Bank

The World Bank is one of the most important, effective and influential international institutions, in the international environment and in particular for the developing countries for its grants, loans and support for development projects, including projects to exploit and develop international rivers. The World Bank may have a negative role and may provoke the conflict on the one hand, and may have a cooperative and positive role on the other hand among the Nile Basin countries. The international changes witnessed by the nineties, most notably globalization and its consequences have led to the rule of new concepts on the management of international water resources according to specific mechanisms.

The World Bank has put new concepts including: water privatization, water pricing, water exchanges, and water markets, under the name of "new water thought." The World Bank has promoted the idea of the need for reform of water resources, by following the privatization mechanism on the grounds that the private sector is better in the management of water resources and arriving to all the state, which was rejected by some countries, including Egypt, because of the potential foreign intervention under the privatization. The issue of water pricing also means according to the concepts of the World Bank, that reliance on market mechanisms would increase economic efficiency, and would exclude the influence of politicians and their preferences, as well as bureaucrats, but these ideas need deepening studies because of lack of experiences in developing countries especially how to find specialized institutions at water pricing, particularly irrigation water. Consequently, the World Bank with its concepts and offered alternatives can not be a neutral party in the water crisis, as it adopts the views of some of the parties (Israel and Turkey) and neglects the other parties (Arab state), where the pricing of water turns it into an economic commodity, which threatens the acquired rights of water throughout history, and therefore headwater countries will demand their financial rights as the price per meter of water that goes to other countries., which may encourage the possibility to generalize this approach for the Nile Basin countries, as there are other countries in addition to the Congo are already adopting water pricing policy such as Kenya, which gets about 20% of the value of water that is used in irrigation. What make it more serious are the external interventions that support the pricing of water and encourage states upstream to do so(Mohamed Salman Tayea,2005).

In contrast to these ideas, the World Bank has played an active role in resolving and settling many of the raised problems and conflicts because of the international water basins, and the Nile River basin is not an exception as the World Bank has played a provoking role in water cooperation in the basin, the Bank has supported cooperative orientations in the Nile Basin especially since 1998 to agree on a list of joint studies and projects among the Nile Basin countries, the World Bank has been monitoring (100) million dollars for these studies, with the aim of strengthening water cooperation. Besides the World Bank's efforts in the coordination among the Nile Basin countries to develop a water cooperative framework which is represented in the Nile Basin Initiative (NBI). The conclusion is that the policies of the World Bank are in favor of the upstream countries under the control of the major powers with interests in upstream countries over the Bank's policies (Ashraf Mohamed Kishk, 2006).

SEVENTH: RESULTS AND RECOMMENDATIONS

It was concluded that the phenomenon of water conflict in the water regional system of the Nile River Basin is stemming mainly from internal determinants whether they are related to the water situation and the limited water and specifically the economic standard of the limited, or related to the absence of the comprehensive general legal framework. The results indicated the following:

- The weakness of the contribution of the Nile Basin countries in the international economy due to the low social and economic conditions which are represented in high rates of poverty, unemployment, drought, mortality and increasing civil wars.
- Decline in the level of GDP sectors in most countries of the Nile Basin, because of the failure of the agriculture sector, the weakness of the industrial sector which based on extractive or transformative industries with limited technological component, the inability to compete internationally, and low service sector, which is predominantly governmental to a great extent.
- The limited size of Egypt's trade with the African continent in general and the Nile Basin countries in particular in comparison with the size of Egypt's trade with other European, Asian and American countries.

- The current water situation in the Nile Basin countries is considered provoking for conflict among Egypt and the Nile Basin countries according to the economic indicator, due to lack of the necessary financial resources to establish the necessary infrastructure to deliver water in spite of the availability and good quality of water, making it easier for the external powers to penetrate basin countries by helping them financially in setting up projects and dams.
- The absence of the legal framework which is acceptable to all the Nile Basin countries, which is encouraging water conflict among Egypt and the Nile Basin countries.
- Intensification of the Israeli presence in the Nile Basin countries directly and indirectly through closer economic and political relations with the Nile Basin countries in order to besiege Egypt regionally and to obtain part of the share of the Nile waters.
- The increasing influence of the United States of America in the Nile Basin countries, either through bilateral relations or through initiatives on the establishment of blocks aimed at weakening the cooperation among Egypt and the Nile Basin countries.
- Despite the World Bank's role in contributing to the development processes in the Nile Basin countries, but the World Bank put new concepts about water such as privatization, pricing policies of water, exchanges of water, water markets, these concepts may lead to stimulate water conflict among the Nile Basin countries due to the dominance of the major powers over the policies of the World Bank which may hinder the World Bank support for the cooperative framework among the Nile basin countries.
- In spite of the efforts that are made by Egypt in order to manage the current crisis, they can not reach meaningful results with the upstream countries which are supported by external powers that give material and moral strength in confronting Egypt.

ON THE BASIS OF PREVIOUS RESULTS

Some of the recommendations can be put to reduce the aggravation of the crisis among the Nile Basin countries and the most important ones are the following:

- Documentation of the principle of strategic cooperation among Egypt and other Nile Basin countries to achieve water security and the exploitation of what these countries have of capabilities and possibilities to maximize the total benefits, take advantage of the water of the Nile River, and proceed to increase water resources through unconventional sources (Diaa El Din Elkoussy,2009).
- The necessity to establish a new institutional legal framework that includes all Nile Basin countries in order to overcome the existing differences, with a commitment to previous legal agreements that guaranteed to Egypt's historical rights in the water of the Nile River.
- The necessity to reconsider Egypt's foreign policy towards Africa and playing an active role in achieving economic and political stability in the Nile Basin countries through holding security, economic, and political agreements with them to confront any external intervention, seeking to marginalize the Egyptian regional role in Africa.
- The necessity for compatibility in the Egyptian-Sudanese stance in the negotiations of the Nile River water, working to take advantage of the capabilities of Sudan to influence the attitudes of other countries of the Nile

Basin, inviting Sudan to identify and clarify its attitude accurately, since Sudan's attitude from the Ethiopian Dam differentiated between acceptance on one hand and undeclared rejection on the other hand.

- More diplomatic pressure through the intensification of direct negotiations between Egypt and Ethiopia.
- Egyptian pressure on Ethiopia through the consolidation of Egyptian relations with neighboring countries to Ethiopia such as Eritrea, Somalia and Djibouti, which are countries that have disagreements and conflicts with Ethiopia, in order to influence the interests of Ethiopia in the region.
- The necessity of Egypt's resort to international arbitration through the International Court of Justice to maintain the inherited share of the water of the Nile River similar to what happened in the case of Taba, to take a decision that is binding to headwater states in accordance with the international conventions, treaties and agreements that are signed with Ethiopia, which apply the principle of international inheritance treaty to affirm Egypt's historical right of the water of the Nile River. It is action that might reflect negatively on Egypt's relations with Ethiopia and make the problem more complicated, since 85% of the Nile water that reaches Egypt come through Ethiopia, and it would take too long time (Ayman El-Sayed Abdul Wahab,2009).
- The necessity of not thinking of resorting to the military option at the moment, because it may damage Egypt more than it may benefit it without ignoring it whenever it is necessary.
- The necessity to avoid any potential negative effects of the construction of the Renaissance Dam, especially the process of storing water in front of it that will lead to the reduction of Egypt and Sudan's share of water, which requires the agreement with Ethiopia over a period of filling the tank of water so that it will not be less than 15 years, and to stop the process of filling the tank if the water level dropped to less than the overall average of Egypt and Sudan.
- The necessity to work on the formation of global and regional public opinion that is supportive to Egypt's attitude as a prelude to reach an agreement that is forcing Ethiopia not to damage Egypt's share of Nile water.
- The necessity to form high commission for the Nile Basin countries that includes Egypt and Sudan and working on the reunion of Africa.
- The establishment of close trade relations among Egypt and the rest of the Nile Basin countries and the exploitation of natural and economic resources that are available in these countries to contribute to the process of social and economic development of the Nile Basin countries.
- The necessity to create a large economic bloc that includes the Nile Basin countries like clusters in the European Union, which requires a kind of integration in terms of rights and duties among these countries (Abdul Majeed Emara,2009).
- The necessity to build real partnership among the public sector, civil society, and the private sector, through the establishment of an Egyptian agency for the development of the Nile Basin countries aimed at supporting the new Egyptian trends to link between diplomacy and development .

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