

**Syrian Arab Republic**  
**Ministry of State for Environment Affairs**



**National report of the Syrian Arab Republic**

**To the United Nations Conference on  
Sustainable Development (Rio+20), June 2012**

**April 2012**

## **Foreword**

Since the Environment and Development Conference held in Rio Di Jenero in June 1992 (the Earth Summit for Environment and Development), and its three resulted conventions (Combat Desertification, Biodiversity and Climate Change); the following international conferences on environment and sustainable development focused on topics like development, poverty alleviation, environment protection, human rights, good governance, women empowerment, children and youth issues.

Later on, the World Summit for Sustainable Development (WSSD) was held in Johannesburg in South Africa in 2002. The political declaration and the sustainable development action plan were the most important results of the summit. The United Nations' Conference on Sustainable Development, to be held in Rio on 2012, the (Rio +20) aims at renewing the political commitment to sustainable development and to evaluate the progress achieved, the remaining gaps and to specify the upcoming challenges.

Syria is committed to implementing the outcomes of these conferences. Syria undertook early endeavours to achieve the aims of sustainable development as well as integrating the environmental dimensions in the State Five-Year Plans. Bearing in mind that the Millennium Development Goals on: poverty alleviation, improving quality of life, education, health, women empowerment, and environment protection, are part of the strategic priorities in Syria and in the core of the development and modernization process and the administrative reform.

Syria worked on establishing and enforcing the sustainable development basics by integrating them in the Syrian development model through drafted strategies, implemented quality policies, enforced the role of concerned bodies and established new ones.

The work was accomplished simultaneously with signing and ratifying international and regional conventions, treaties, and protocols and committing to their obligations.

Amongst these obligations, establishing and modernizing institutional structures, implementing programs, projects and plans agreed.

The Syrian efforts are clearly presented in the report, the efforts invested to achieve sustainable development; challenges and obstacles as well.

Syria jumped a huge step in the path towards sustainable development. A plan to improve air quality is being implemented, starting with importing gas-powered busses, encouraging the use of clean and environment-friendly public transportation, improving the fuel quality and encouraging the use of green diesel.

Furthermore, the plan states the establishing the concepts of green building, awareness about its benefits, improving the energy efficiency and using renewable energies. Currently, the work is on progress to design a National Strategy for energy efficiency and renewable energies and improving ; besides preparing an action plan, timetable towards a green investment plan. In addition, heading towards integrated management system for water resources and starting integrated environmental planning for land-use in several Syrian governorates.

This report was prepared based on the stocktaking report of the accomplishments in sustainable development in the last twenty years. The stocktaking report is the first phase in preparing the National Report of the Syrian Arab Republic on Sustainable Development.

The National report goes on several phases, the first one in forming a national committee with the members representing all concerned ministries, national bodies, representative of local communities and private sector. The United Nations Development Program (UNDP) in Syria provided the technical support according to the required terms of references and guidelines for national reports preparation.

Several consultation meetings with stakeholders have been organized to discuss the subjects suggested for the conference, which is, institutional framework of sustainable development on national, regional and international levels; green economy and poverty eradication.

Lastly, I would like to sincerely thank the United Nations Development Programme for the technical support provided to this report, and to thank the national committee, combined of representatives from concerned ministries, non- governmental organizations, members of local communities and private sector; for their contributions to the preparation of the Syrian Arab Republic National Report on Sustainable Development for the United Nations Conference on Sustainable Development (Rio+20).

**Minister of State for Environment Affairs**

**Dr. Kaoukab Daya**



## **Introduction:**

The Syrian Arab Republic lies in the western part of Asia and average distance between Asia, Europe and Africa. It is located between the longitudes east 35-42, and between the latitudes north 32-37.

The Syrian Arab Republic is situated on the eastern coast of the Mediterranean Sea and is bordered on the north by Turkey, on the south by Jordan and Palestine on the east by Iraq, and on the west by Lebanon, and the Mediterranean Sea where the coastal part spread over 210 km. The overall land area of the Syrian Arab Republic is 185,180 sq km. The Syrian occupied Golan covers 1860 sq km, most of it was occupied in 1967. The war in October 1974 liberated a part of it and the rest (1260 sq km) is still occupied.

Syria is characterized by its Mediterranean climate though located between arid and semi-arid zones; and is characterized by its diversity of climate between the coastal region, the desert in the middle, the eastern and North-Eastern region and the forest areas in the North and North-Western region of the country.

Regarding the political system, Syria is a republic with three authorities: the Executive, the Legislative (the Parliament) and the independent Judicial authority. The Executive authority is formed by the President, the Council of Ministers and the local administration, which is represented by fourteen governorates. The Supreme Council of Local Administration and the Local Council of Governorates are democratically elected.

The population of Syria is estimated by 24.504 million at the beginning of 2011, based on the records of the Civil Status Registrar, with an annual growth rate of approx. 2.4%.

The gross domestic product (GDP) at constant prices in 2010 is estimated to be (1469) billion Syrian Pound. The average ratio of annual economic growth, for the period between 2000 and 2010, is 5%. As a result of the current situation and the unjust sanctions imposed on Syria since last year; the rate of growth will be negatively affected and will have negative impacts on all aspects of life, consequently on the development process as a whole.

## **General Framework:**

Within the framework of planning and strengthening the basis of sustainable development in its national context, Syria drafted and adopted strategies, implemented general and qualitative policies, reinforced the role of existing development agencies and founded new ones as well. This happened in parallel to ratifying several regional and international treaties and subsequent protocols, in addition to committing to the fulfillment of the embodied obligations, such as: founding and developing institutional structures and implementing programmes, projects and plans that are mentioned in the signed treaties and protocols and other following and related regional and international obligations; including the Common but Differentiated Responsibility principle that distinguishes between countries according to the different capacities of each country to respond to climate change, dealing with its causes and mitigating the expected results. This follows the principles of sustainable development, global equity, total and mutual impact, liability for the actions taken and the precautionary principle.

Since its participation to the Earth Summit in 1992 and the related activities and subsequent international conferences, Syria signed and ratified at an early stage international treaties and conventions on Biodiversity, Climate Change and Combating Desertification. The concerned Syrian agencies worked at all levels in order to fulfill the country's obligations embodied in these treaties and conventions, they reached many positive results although some outcomes were not as good as hoped for.

Actually, Syria still adopts a comprehensive approach to development including the economic, social, environment and culture aspects. On the global level, there are the implications of the world crisis, including: the food crisis, the energy crisis, the financial and economic crisis and the rising prices of many goods and raw materials. This is in addition to the negative effects of the environmental changes, global warming and the resulting ecological imbalance. Syria is suffering from the growing instability in the region as a result to the American occupation of Iraq, the continuous refusal of Israel to establish peace in the region while still maintaining its occupation of Arab territories and its continuous acts of aggression.

All of these factors negatively affected the use of available resources in Syria to confront the implications of this situation and its results.

Syria is also facing several obstacles in its access to new and advanced technologies which play an essential role in the effective implementation of the development projects on the general and sectorial levels. The obstacles are not limited to the financial aspect but also include access to production technologies and advanced services as a result of the US embargo and other unjust sanctions that are imposed on the country with all its real effects on the implementations of vital projects, including projects using Clean Development Mechanisms (CDM). This is in addition to localizing the infrastructure in the fields of information and environmental technologies and more generally in order to achieve sustainable development.

On the local development level, the obstacles and challenges for effectively implementing the development plans are spread over different levels and domains: institutional, legislative, executive, capacities, and needed expertise. The distribution and overlap between these obstacles and challenges as well as the ineffective exploitation of full and potential capacities all form impediments that limit reaching the required essential changes, the growth of an effective common awareness regarding sustainable development and needed capacity-building. The challenges weaken the impact of several projects implemented over the past two decades and the possibility of cumulative results of these projects.

Furthermore, the priorities of sustainable development vary according to the concerned bodies, as the awareness of different concerned players vary amongst producers, consumers, governmental institutions, non-governmental organizations and the private sector. Amongst those, some are more concerned with achieving high rates of economic growth and increasing the share of per capita income, while disregarding the principles of sustainable development, the cost of the environmental degradation and without considering the integration of the economic, social and environmental aspects in the applied strategies.

The State Tenth Five-Year Plan (2006-2010) dedicated a special component to sustainable development in Syria; and thus made an essential leap in the strengthening of the achieved development gains of the previous decades and the exploitation of the engines of sustainable and diverse growth. However, the governing institutional and

policy framework did not achieve all of its ambitious goals, including the implementation of a real and comprehensive approach to the "social market economy".

Moreover the creation of the Higher Council of Environment protection, as a distinguished institutional body concerned with environmental issues, with a continuous developing legislative framework, is a sure step towards coordinating between different bodies and agencies concerned with environmental work in Syria, whether at the planning or implementation levels. Furthermore, the Council increases the role of the Ministry of State for Environment Affairs to support other concerned executive bodies, by taking a multi-sectorial approach to environmental issues.

**Secondly- sustainable development on the strategic level:**

Syria is facing a difficult phase of development due to the repercussions of the worsening general situation, the geo-economic world crisis context (the 4 crises of energy, food, economy and financial credit, as well as the constant implications of climate change and global warming), and by regional instability, not least of the continuing occupation and the depletion of resources of Arab lands by Israel (including the Golan); not to mention the internal crisis experienced by Syria since last year.

Nevertheless, all the previous mentioned obstacles did not prevent Syria from renewing the State's role in shaping and achieving sustainable development and the shared responsibility of both State and society in protecting the environment, through a referendum on a new constitution in February 2012. Article 13 of the new Constitution stipulates in paragraph 2: *'The State's economic policy aims at meeting the basic needs of individuals and society through economic growth and social justice and access to comprehensive, balanced and sustainable development'*. Also Article 27 stipulates: *'The protection of environment is the responsibility of the State and society and is a duty of every citizen'*.

The Constitution was adapted in parallel with the new environment law No. (12/2012), which considered as a regulatory and organizational pillar in the area of environment protection and achieving sustainable development. The new law gives more mandates and responsibilities to the Ministry of State for Environment Affairs



which should be executed in a close cooperation with related bodies. In addition, the new law introduces the environment policies and incentives procedures in many articles such as canceling some taxes and reducing taxes customs taxes by 50% imposed on the materials and technologies that are considered as environmental friendly sound in order to facilitate the environmental protection.

Additionally, Local Administration Law (2011) which is considered a move towards shifting the authorities to local administrations, entitling them with wider powers and making them responsible of integrated development at the governorate level, within a comprehensive strategy for balanced and sustainable development. Moreover, Commission for Regional Planning was founded based on the Law of Regional Planning (2010), that stipulates in Article 4-1: *'The purpose of the preparation of regional plans is the leadership and management of spatial organization in the region in an integrated and balanced way so as to support sustainable development; including social, economic and mutual aspects according to their priorities and requirements'*.

#### **A) Strategies and policies approved and adopted in the last two decades:**

The State Five-Years Plans are considered to be a mechanism for planning and achieving sustainable development with its economic, social and environmental components, aiming at mobilizing and aligning the available resources with the development requirements and the needs of the community; in addition to ensuring the rights of future generations. Several strategies, programmes and plans have been adopted within the framework of the successive Five-Years Plans, these are as follows:

1. The national framework strategy for sustainable development.
2. The national environmental strategy and action plan in Syria.
3. The initial national communication on the UN Framework Convention on Climate Change.
4. The national strategy and action plan for the adaptation with the climate change in Syria.
5. The national strategy and action plan for biodiversity in Syria.
6. The national plan to combat desertification.

7. The national and sectorial Action Plan to reduce pollution in the Mediterranean Sea and the coastal zone.
8. The preparation and implementation of the master plan for solid waste management.
9. The micro-finance strategy and the strategy for small and medium enterprises.
10. The national plan for preparedness and response to incidents of oil pollution in the Syrian coast.
11. The national Plan for new and renewable energies in Syria.
12. The e-government initiative and e-government strategy (and projects and programs, including environmental management services).

**B) The founded institutions:**

Over the last two decades, an institutional framework has been developed in order to organize the efforts invested in different domains related to sustainable development in Syria. Amongst those institutions are the following:

1. In 1991, the Higher Council for the Protection of Environment was established and recently amended by the Law N. (12) in 2012. The Council is the highest responsible body for environmental affairs, responsible for the endorsement of the vision, policy, strategy and action plans of environmental protection; in addition to the responsibility of amending them according to the State's general policy. The Council is also responsible for environmental regulations and conditions, and for approving contingency plans in response to environmental disasters.
2. The Ministry of State for Environment Affairs, which was created in 1991 for the first time. Lately its functions were modified according to Law No. 12 of 2012. The Ministry prepares the plans, regulations and needed laws to protect the environment, and controls the quality of components of the ecosystem. The Ministry also planned the priorities of its environmental work on the short and medium terms in a managerial framework. This included operational procedures and technical and executive plans aimed at improving the environmental situation, which can be summarized according to the following components:
  - Improving air quality in major cities.

- Improving water quality.
- Improving land quality and biodiversity conservation.
- Applying integrated environmental waste management.
- Developing mechanisms to support environmental decisions through the development of infrastructure.
- The trend towards increasing green investments and green economy.
- Increasing and disseminating environmental awareness and its importance in the conservation of natural resources.

1. Establishment of environmental departments in several ministries in order to prepare and implement environmental standards and specifications, and to supervise the application of procedures and laws in the concerned sector.
2. The creation of the Directorate of Environmental Planning at the Commission of Planning and International Cooperation.
3. The creation of the National Energy Research Center.
4. The establishment of the Regional Planning Commission.
5. The creation of specialized regional development commissions such as Al-Ghab Development Commission, and the General Commission for Al Badia Management and Development, and specialized bodies dealing with specific topics such as the National Commission for Clean Development Mechanism, and the General Authority for Water Resources.
6. The establishment of the National Center for Cleaner Production in the Ministry of State for Environment Affairs, which coordinates with the Regional Centre for Cleaner Production in the Mediterranean region.
7. The creation of the Fund for Supporting and Protecting the Environment responsible for setting the basic rules necessary for the safety and protection of the environment from pollution and in order to achieve environmental development.
8. Founding the National Observatory for Environmental Information including the Environmental Information Databank at the national level, and an Environmental Information Center in order to serve the sustainable development plans and to provide support for environmental decisions.

**C) Treaties, legislations, standards and decrees concerned with sustainable development:**

**1. International and Regional Treaties**

Syria joined and committed to implement the three treaties resulting from the Earth Summit on Environment and Development in 1992: The United Nations Framework Convention on Climate Change, the Convention on Biodiversity, and United Nations Convention to Combat Desertification. Moreover, Syria signed and ratified international and regional agreements concerned with sustainable development and environmental protection (multi-sectorial, inter-generational and intra-generational). Amongst these treaties, the most important ones are:

- The Convention on Wetlands of International Importance, (Ramsar) 1997.
- The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean 1978
- The Convention for the Protection of the Marine Environment of the Mediterranean and the Coastal Region 2005 and all its Protocols.
- The Stockholm Convention on Persistent Organic Pollutants (POPs) (Decree 54 of 2005).
- The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Decree 35 of 2003).
- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Decree 246 of 1991).

**2. Legislations directly and indirectly related to sustainable development**

Syria works on providing the regulative framework for sustainable development, therefore a set of legislations have been issued, such as: the Environment Law (2012), the Regional Planning Law (2010), the Water Law (2005), the Decree to Protect, Manage and Exploit Forestry (2007), the Law Protecting the Marine Environment (2006), the Energy Conservation Law (2009) and the Decree of Organic Agriculture in Syria (2012).

## **1. Guidelines and technical regulations, standards and specifications**

A number of decisions and technical regulations were drafted, such as the executive orders for the Environmental Impact Assessment and the classification of hazardous industrial waste, the hazardous waste management system, the health care waste disposal system, and the Syrian Code for thermal insulation.

In addition, the Syrian Commission for Standardization and Metrology issued the significant number of specifications, such as: the environmental management system; general guidelines on principles, systems and technical support; ambient air quality; internal environment air quality; occupational safety and national work environment; drinking water specifications and wastewater treatment for irrigation purposes.

### **1. Analysis of the strengths, weaknesses, opportunities and threats that govern the institutional framework for sustainable development**

#### **A) Strengths:**

- Several institutional and legislative changes dealing with the foundations of sustainable development. This as well as the integration of the sustainable development plans within the yearly and five yearly development plans.
- The commitment of Syria, over the last two decades, to the sustainable development principles.
- The new Constitution (February 2012) stresses the role of the State in shaping and achieving sustainable development and the shared responsibility of State and society in protecting the environment. Article (13-2) of the Constitution stipulates: 'The economic policy of the state aims at meeting the basic needs of individuals and society through economic growth and social justice and access to comprehensive, balanced and sustainable development'. And Article (27) states that: 'the protection of the environment is the responsibility of the State and society and it is a duty of every citizen'.

- The government's persistence in developing international cooperation in order to support the efforts towards sustainable development.
- Establishing a number of non-governmental organizations with goals related, directly and indirectly, to sustainable development and the environment. The government supports these NGOs and enhancing their capacities so as to activate their work.

## **B) Weaknesses**

- The definition of the concept of sustainable development for the conservation of the environment for most workers in the relevant sectors, especially since there is a difference between understanding and applying this concept.
- The perception of the sustainable development principle as an independent sector to be dealt with separately, without considering the full importance of integrating horizontally within all economic sectors, such as industrial production and services; in addition to the inseparability of the three dimensions of the economic, social and environmental aspects; the geographical comprehensiveness; the participation of all actors and groups in society; and ensuring the rights of future generations.
- The application of the concepts of integrated management of natural resources is weak.
- The increasing population pressure on infrastructure and basic services such as education and health.
- The pressing economic situation in Syria that may push for quick solutions, which may have negative impacts on some long term policies in the economic, social and environmental fields.
- The weak capacities to apply legislation and implement the full role of the organizational structures.

## **C) Threats:**

- Syria is affected like other countries, to a certain extent, by the international economic-financial crisis, the rising energy costs and the rising food prices in parallel with the climate change crisis, which forces

the State to prioritize economic growth over development issues and environmental degradation.

- The lack of international consensus over the priorities of sustainable development.
- Instability in the region and the Israeli occupation of Arab territories, including the Syrian occupied Golan, and the war against Lebanon. Additionally, the Syrian and Lebanese coasts face environmental threats caused specifically from oil pollution as a result of the Israeli aggression against Lebanon in 2006. Other Israeli acts in the occupied territories and the Syrian occupied Golan are harmful to the inhabitants, the land, water, fauna and soil. These acts are in contradiction with international laws, particularly with the Geneva Convention. The ecological and environmental systems in the Golan were deliberately damaged, especially the ancient monuments representing all historical epochs and pre-history. Water resources have been depleted, hundreds of apple and cherry trees have been uprooted and houses demolished. There are hazardous waste landfills, which are an environmental disaster for this region. Israel holds control over water resources and deprives Syrian citizens from having access to water (the Syrian citizen in the Golan gets only 20% of his/her annual water need); and also deprives those citizens from work. Hundreds of thousands of citizens were displaced from their lands to nearby areas in the governorates of Damascus, Rural Damascus and Dara'a, which has caused huge pressure on services and sustainable development projects. It is worth mentioning that the United Nations General Assembly has repeatedly called upon Israel through several Resolutions (latest Resolution 66/225) to stop exploiting natural resources in the Syrian occupied Golan and to stop damaging, causing loss or endangering these resources, and demanded it to cease from taking any action harmful to the environment, and resulting in the destruction of vital infrastructure.
- Developing institutional and legislative mechanisms to set the foundations of sustainable development and achieve sustainable economic growth in parallel with decreasing the levels of environmental degradation.

- The challenge of having access to advanced and high technologies which basically play an essentially role in supporting the implementation of various sectorial and national development projects. These challenges are not limited to financial barriers but also the difficulty of access to production technologies and advanced services and the implementation of vital projects, including the clean development mechanism projects (CDM). These difficulties are mainly due to the U.S. embargo. Moreover, Syria is currently witnessing an unfair series of sanctions that are withholding the achievement of sustainable development, in addition to economic pressures due to the current crisis that Syria is facing.

**D) Opportunities:**

- A special segment in the new Constitution of February 2012 is dedicated to the role of State in shaping economic policies, and one of the Articles stresses on the importance of 'achieving economic growth and social justice in order to reach comprehensive, balanced and sustainable development.'
- There is a possibility to transform the current economic crisis into an engine to stimulate and release a radical modernization process of the strategic framework of sustainable development. The diversification of sources of income and sustainable growth could be achieved, through the sectors of technology, services, sustainable tourism, non-polluting and added-value manufacturing with long-term and wide-spread social impacts. All of this in order to change the mind frame of generating money out of producing and exporting raw materials,
- Qualified human resources in the field of sustainable development, which have grown evolved in Syria during the past two decades, provide cultural and technical support to the above mentioned modernization process.



**Thirdly- the achievements following the three conventions adopted at the United Nations Conference on Environment and Development (1992):**

**The United Nations Framework Convention on Climate Change (UNFCCC)**

Syria is facing the same challenges as other developing countries in coping, adapting and reducing the effects of climate change; these are lack of financial resources, difficulty in access to needed technologies and specific capacity-building. Syria is looking forwards to confront these challenges in order to find adequate solutions.

Syria joined the UNFCCC on 3/4/1996 with Decree N. (363) of 1995, and ratified the Kyoto Protocol with Decree N. (73) of 2005. Syria acknowledges the importance of cooperation with the international community so as to limit the effects of climate change and wants to benefit from the financial mechanisms provided by the Protocol in order to alleviate these effects.

As Syria is located geographically in the middle of dry and semi-dry areas, it is one of the countries most vulnerable to the expected effects of climate change. The country is suffering from an abnormal rainfall, a decline in available water resources, fluctuations in temperature during the past five decades, and the succession of drought and its negative effects.

There is an increased pressure on the already scarce resources and basics services due to the continuous increase in population. This leads to an increase in the vulnerability of all economic sectors to climate change effects, which limits the country's ability to achieve a balanced economic and social development, therefore hindering the process of sustainable development.

Syria adopted many policies and procedures to face up to the challenges of climate change. It participated in the conferences of the parties on climate change and the negotiations to reach an agreement between the States Parties on issues of adaptation, mitigation, technology transfer, capacity-building and coordination of positions with developing countries, in order to achieve consistency in its national interests and obligations towards the Convention. Syria accomplished the following:

- Preparation of the first national communication on climate change, including the greenhouse gas emissions inventory and ways to reduce and adapt to the negative phenomena resulting from climate change and actions needed to address this phenomenon. Also, the implementation of the second national communication on climate change has started.
- Preparation of the national strategy for climate change adaptation.
- Training of human resources, raising awareness and national capacity in the field of climate change, this in order to be able to fulfill the obligations of the concerned conventions that Syria has signed.
- Preparation of a clear strategy to benefit the most from the clean development mechanism. This is one of the Kyoto Protocol's mechanisms to reduce greenhouse gases emission and to develop the institutional structure that will serve the projects' implementation. To this date three national projects are being implemented (the project of TalDaman landfill in Aleppo, the project of Deir-Be'albeh landfill in Homs, and the nitrous dioxide treatment in the nitrogen fertilizer plant project).
- Promotion of the use of natural gas in the energy and transport sectors, the use of cleaner and advanced technology in fossil fuels, improving the technology of oil refining plants, improving fuel specifications, and adopting programs for the maintenance of vehicles.

#### **A) United Nations Convention on Biological Diversity (UNCBD)**

Syria signed the Convention on Biological Diversity in 1993, ratified it in 1995, and ratified the resulting Cartagena Protocol in 2004. Integrated measures in all sectors have been undertaken in fulfillment of the obligations stipulated by the Convention, in order to halt the loss of biodiversity in all ecosystems. One of these measures was to prepare the national strategy for biodiversity in Syria in 2002. The country was elected as a member of the Executive Board of the Convention in 2010 representing the Western Asian region. Additionally, Syria prepared the CBD national reports: the first report in 2001, the second in 2003, the third in 2005, and the fourth in 2009. Furthermore, Syria completed other activities and projects according to the requirements stated in the various articles of the CBD.

## **B) United Nations Convention to Combat Desertification (UNCCD)**

Syria is considered to be an active member of this Convention that was signed in 1994 and ratified in 1997. Later on, Syria drafted the National Work Programme to Combat Desertification in 1995, which came in harmony with the spirit of Agenda (21), the International Convention to Combat Desertification and regional action plans. The project aims at increasing public awareness, sensitizing decision-makers towards desertification issues, so as to integrate the problems of desertification in national development policies, it also aims at encouraging the effective participation of all stakeholders at all levels, and at setting up and applying a strategy to mobilize and move the required resources.

The National Plan (2002) was completed within the framework of the National Work Programme to Combat Desertification. The projects set up under this plan have been implemented, partly or completely, as programmes; other parts of the programmes are currently being implemented within the activities of the concerned ministries. The UNCCD National reports have been prepared as well: the first report in 2000, the second in 2002, the third in 2006, and the fourth in 2010. Also, the National Plan to Combat Desertification was completed in 2002; numerous people were trained technically in the field of combating desertification; and a national committee was set up to follow up on the efforts to combat desertification. Amongst the priorities of the Action Plan (2012-2014) is the process of modernization and harmonization of the National Plan to Combat Desertification with the objectives of the Tenth Strategy of the International Convention to Combat Desertification (2008-2018).

Difficulties and obstacles, such as weak financial resources, are still to be resolved although huge efforts and national funds are being invested to combat desertification. Other factors such as the low level of public awareness towards the issues of desertification and the need to develop national expertise are amongst these obstacles.

## **Fourthly- Sustainable Development at sectorial level**

### **A) The Energy sector**

Energy sector is one of the most important elements for sustainable development due to its role in the immediate achievement of GDP, and as an essential element for the growth of other sectors. Also it is important for funding the infrastructure, funding a large part of imports and securing job opportunities. The strengths, weaknesses, opportunities and challenges for the energy sector, from the perspective of sustainable development, are as follows:

#### **1. Strength points:**

- Exploitation of water resources to produce electricity, and the emergence of gas as a clean energy.
- To provide products and energy carriers as inputs to production and final low consumption prices for most of the energy carriers, and the reaching of coverage of electric power to more than 97% of the country.
- The application of the slides in the socio-economic pricing, and the adoption of price stimulation to improve the power factor in the consumption of electricity in the industrial sector.
- A set of regulations related to the production and consumption of energy (The energy conservation law No. (3) on 2009, the Buildings' Thermal Insulation Code issued by communiqué of the Prime Ministry No. 19 / B / 7130/15, dated 22/11/2007).
- Initiate the registration procedures of power plants with installed closed circuit according to the Clean Development Mechanism.
- Establishment of the National Energy Research Centre and update of the Wind Atlas and Solar Radiation Map.
- Adoption of quality standards for most of the energy derivatives.
- The existence of networks and stations and the infrastructure that links between production, refining and processing locations.
- The presence of the electric grid with eight Arab countries and Turkey to North Africa and the Gulf, and the signing of several cooperation agreements between the countries of the region in the field of energy.

- Existence of plans for preparedness and respond to emergencies in the field of oil.
- Initiate a number of projects to generate energy from renewable resources such as wind and solar energy.
- Initiate the preparation of the national strategy for improving energy efficiency.

## **2. Weakness points:**

- High energy consumption exceeds the rates of economic and population growth.
- A large proportion of technical and commercial losses.
- Old technology and technical limitations in some production circles, distribution and consumption.
- The impact of low prices and not delivering support to reach the deserved people on the development.
- The occurrence of smuggling of petroleum products to neighboring countries because of the price difference due to the support of oil derivatives in the country
- Due to the crisis in Syria since last year, difficulties resulted in the delivery of petroleum products from storage and production centers to consumption centers because of the continued encroachment on the oil pipelines with a view to theft and vandalism

## **3. Opportunities:**

- There are real strengths to rationalize the real consumption of energy carriers, and the possibility of adopting the principle of integrated management of the demand, including mechanisms for smart pricing.
- Ability to exploit new and renewable energies resources by establishing factories manufacturing the components of photovoltaic (PV) and wind energy equipments.
- Modernize the legal framework such as issuing the new Electricity Law, which aims at providing electricity to meet the needs of the community and the national economy. The Law allows the public, joint and private sectors, national, Arab and foreign investment in the areas of generation

and distribution, and to support and encourage the use of renewable energy resources in various fields and nationalizing its production.

- Improve the efficiency of fossil fuel production and development of new discoveries.
- Syria's geo-political positioning in the middle of the global oil system and the possibility to play a vital role as a transit country for oil and gas supplies from Arab Gulf Countries towards the Mediterranean and Western Europe.
- The establishment of electronic systems to ensure the security of petroleum pipelines from encroachment and theft that began to emerge as a result of the current conditions experienced by Syria
- Tighten control over the land borders with neighboring countries to prevent the smuggling of oil products outside the country

#### **4. Threats:**

- Decline in crude oil production over the medium and long terms.
- The continuation of environmental challenges and turned into serious threats.
- The continuing in high demand level for all energy derivatives and identification of electrical power without fulfillment of high rates in economic growth and increased private funding gaps for financing infrastructure.
- Increasing and liberalizing the energy prices locally without adopting any measures to protect the production sectors.
- Substantial increase in world oil prices without contributing to the increase in local production of oil or to encourage the exploitation of new and renewable energies.

#### **B) The transport sector**

The transport sector is of key importance for the Syrian economy through its direct and indirect increasing contribution to the GDP, and an essential input for the growth of all economy sectors such as production and services. The strengths, weaknesses, opportunities and challenges for the transport sector are

as follows:

### **1. Strengths:**

- Increased employment opportunities and employment rates in the private transport sector.
- Very good infrastructure (roads network, qualified international airports in the cities that cover the different directions and an airport on the coastal area); in addition, an expansion of roads transport network and the multiplicity of sorts of transport used.
- A growing role in the increase of trade exchange nationally and between Syria and countries of the region.
- Renewal of the transport fleet after several decades of technological obsolescence, and promote the change of old cars that leads to waste fuel consumption and pollution of the environment.
- Promote the use of hybrid and electric cars by reducing fees and taxes.
- Adoption of environmental tax on the registration of the cars for the first time only, and annual fees linked to the fuel consumption; that would be accomplished by exchanging the annual fee with the fee on fuel.
- Adoption of Law on the protection of roads, and decision about Regular Axle Loads.
- Adoption of a new Traffic law and conduct a link the fines to reducing points and financial fines which lead to reduce traffic accidents, violation of the law and the reduction of human injuries.
- Signing of Damascus Treaties 2004 to free the Arab air transport.

### **2. Weaknesses:**

- Aging public transport vehicles within cities and between cities.
- Concentration of more than 75% of the population at Aleppo-Dara'a axis.
- The absence of advanced public and environmentally friendly transport network, such as electric busses (tramway) and metro inside the cities of Damascus and Aleppo, and transport network in the suburbs.
- The need to develop the railway network in order to transport passengers and goods as to keep up with the industrial and economic development on local level.

- The need for an integrated multi-patterns transport system.
- Increased rates of pollution in major cities.
- Delays in the use of gas in the transport sector as a source of fuel.
- The inability of the Syrian ports to accommodate the giant ships.
- Weak application law enforcement for violations of law based on polluting old vehicles.
- The lack of treatment centers for hybrid car batteries, which cause environmental and health problems if dumped randomly.
- Lack of using natural gas in transport system in cities.
- Due to the crisis in Syria since last year, difficulties resulted in the delivery of petroleum products from storage and production centers to consumption centers because of the continued encroachment on the oil pipelines with a view to theft and vandalism

### **3. Opportunities:**

- There are real strengths to rationalize energy consumption in the transport sector.
- Ability to exploit Syria's geopolitical position as a point of contact between the countries of the region and increase trade between these countries.
- Amendments to the legal and legislative measures and their impact in improving the investment and operational environment.
- Provide participatory projects: two pivotal roads (between Jordan and Turkey and between Iraq and the Mediterranean to be two development roads).
- Adoption of modern, integrated and environmentally friendly transport systems using of clean fuels such as electricity and gas.
- Automation and application of quality standards in various areas of transport.
- The possibility of establishing a public transport system.
- Providing infrastructure for fuel gas investment mechanisms (petrol stations running on gas - piped to homes) in order to preserve the environment



- Installation of an electronic system to monitor oil tanks on the main and branch roads to prevent the smuggling of petroleum products outside the country
- the need to secure of the railway of the infringements that have emerged as a result of the current conditions experienced by Syria

#### **4. Threats:**

- The international and regional changes, regional trade agreements creates the necessity to liberate trade in services, and intense competition in the application of open skies; in addition to the large increase in demand in transport transit through Syria.
- The growing environmental challenges resulting from the transport sector and its transformation into serious threats.
- The emergence of a financing gap for the advancement of the infrastructure for the entire transport system of airports, ports, railways, and roads network in order to rehabilitate a number of facilities and building new ones.
- The continuing U.S. embargo on purchasing and reconstructing of the Syrian aircraft engines.
- Increased of transport prices locally and increased world oil prices.

#### **C) The agricultural sector**

Syria is characterized by the diversity of agricultural appropriate to different plantations of the Mediterranean environment, as well as diversity in agricultural production. This production, both fauna and flora, meets the domestic consumption, processing and exportation (more than 50 basic products). The agriculture sector plays an important role in economic and social development through its contribution to the labor market and the national income. The strengths, weaknesses, opportunities and threats of the agriculture sector and land use are as follows:

## **1. Strengths:**

- Increase the irrigated area, the production of many crops reached high levels, and the area of forest and protected areas were increased
- The existence of a large number of agricultural cooperative banks (agriculture credits).
- The existence of universities and institutes that provide the agricultural labor market of qualified human resources.
- The existence of equipped laboratories in several ministries and linked to agricultural - food activities.
- State's commitment to international conventions on health and Phytosanitary.
- The implementation of several agricultural projects that serve the sustainable development with its three pillars.
- Completion of environmental map for the integrated management of land use in Syria.

## **2. Weaknesses**

- Vulnerability of agriculture to climate change and their consequences as drought, scarcity of water and decrease of rainfall.
- Low productivity of some lands, and its exposure to loss of fertility, salinization, and degradation as a result of agricultural intensification, natural conditions and failure to regulate land.
- Fragmentation of agricultural land ownership to a level that limits mechanization and hinders investment in some areas.
- Lack of adequate attention to the investment of land resources and the application of appropriate crop rotations to maintain soil quality and optimum utilization of water resources in the production of high value crops.
- Desertification and deterioration of Al-Badia (semi-desert area) as a result of climate change on the global level, and low rates of rainfall. In addition to inadequate human practices in the wrong investment of natural resources, overgrazing, and poor management of ecosystems.

- Weakness in the manufacturing processes and marketing of livestock products in Al-Badia (semi-desert area), and in programs for the rehabilitation and training of local communities.

### **3. Opportunities**

- The development of scientific research and development of varieties resistant to drought and less commonly used for water and highly productive.
- Training of technical staff in the entire value chain including infrastructure for the quality system.
- Support the cloud seeding project (increased rainfall rate 6-16% of normal rate).
- Focus on agriculture cycle with less consumption of water, yet it goes in line with the principle of comparative advantage and competitiveness of agriculture in Syria.
- The use of wind power and solar energy to pump water from wells.
- The use of vegetative and organic fertilizer, which gives added value to agricultural products.
- Continue to use (integrated) biological control in agricultural transactions.
- Attention to the quality of agricultural products by assisting in the application of good agricultural practices, and aiming at winning quality certification for agricultural and food products.

### **4. Threats**

- Significant affection of the agricultural sector by the weather conditions.
- Loss of some fertile parts of land as a result of agricultural intensification and the failure to regulate the land planting, consequently a lower productivity.
- Urban expansion over the agricultural land.
- An increase in the fragmentation of agricultural land ownership, which hinders investment and mechanization.
- Support agriculture sectors in neighboring countries which increases the competitiveness of local agricultural product.

- Increased in fuel prices, which may lead to a reduction in the implementation of irrigated agriculture that depends on the water deep wells.
- The need to complete the environmental map of the agricultural economics of the country determines the optimal areas for the production of crops and fruit trees commensurate with the classification of the Syrian territory, according to comparative advantage and using geographic information system.
- Forest degradation and deterioration of vegetation cover.
- Extinction of some plant and animal species.
- Land and water pollution with pesticides and nitrates.

#### **D) The water sector**

Syria is a country of dry and semi-arid climate, directly reflected on the renewable water sources, and the rainfall rate is variable. Water resources are also subject to considerable pressure of population growth, in addition to random housing, development needs climate change and, increased frequency of drought cycles. The strengths, weaknesses, opportunities and threats of the water sector and land use are as follows:

##### **1. Strengths:**

- Projects of Ministry of Irrigation to develop water resources and raise the organizational level.
- Increase the area of spray irrigation, and increase the storage capacity of dams.
- Governmental financial support to develop the water sector, and to provide loans for the modern irrigation system (spray - punctuation - location - under the soil).
- Sewage treatment plants projects as a non-conventional source of water for irrigation. Also improving water quality through treatment plants and preventing pollution of water sources by developing environmental conditions.
- Take action to maintain the quality of marine environment, rivers and water bodies from land-based activities of various pollutants.

- Continuing the projects of the Ministry of State for environment Affairs, especially in the field of environmental management and monitoring of water bodies and their effectiveness in reaching sustainable development.

## **2. Weaknesses**

- The low share of individual of renewable water in some basins.
- Water pollution in a number of basins due to agricultural intensification, the use of pesticides, industrial sewage and industrial pollutants. In addition, raising the pressure caused by water pollution because of the absence of treatment plants or non-compliance with environmental standards.
- losses in drinking water and agriculture water.
- Low efficiency use of water due to excessive irrigation of uneconomic crops.
- Weak enforcement of laws and regulations related to the protection of water sources, and weak presentation of the environmental aspect of every water project.
- Lack of balance between the increase in irrigated areas and the amount of renewable and available resources.
- Poor management and development of information within the water sector.

## **3. Opportunities**

- Financing ambitious irrigation projects (continuing the construction of drawing water channels from the Euphrates to Aleppo and Hissyeh, and from the Tigris to the Khabur and other areas).
- Expansion of modern irrigation projects, especially with the availability of funding and loans for modern irrigation (spray - punctation – in location - under the soil), with the creation of the Fund for Financing the National Project for the Transition to Modern Irrigation Systems, and the dissemination of modern irrigation techniques to support 50% of the cost. The implementation of the national project for irrigation will be allowed to provide modern 4 billion m<sup>3</sup> of water per year and increase yield.
- The possibility of raising awareness of the environmental aspect while preparing policies and solutions for alternative, good and appropriate

investment options for the selected projects. Also dealing with environmental management and monitoring of the quality of sources.

- Heading towards integrated environmental management of water resources in the State Eleventh Five-Years Plan.
- Reuse of treated water for irrigation in order to reduce the water deficit based on the required specifications, and the completion of the treatment plants projects (highlighting the feasibility of funding treatment plants projects, at national level, with all its economic, social and environmental dimensions).
- Encourage the cultivation of crops with high added value and those which consume less water.
- Take advantage of scientific developments as mathematic models, strains resistant to drought and salinity. Moreover, carefully monitoring the irrigated area, the issuance of quarterly maps based on satellite images, resettlement of scientific technology and appropriate technologies and environmentally friendly in order to maintain the integrity of water sources.

#### **4. Threats**

- Decrease in the rainfall rate, especially with the continued impact of the global climate crisis, the high temperatures, low groundwater recharge, and the continuing changes in rainfall patterns.
- High population growth rate and increased activities of water-intensive, and the possibility of the predominance of the concept of available water resources in order to use it and exploit it over the quality of used water and sustainability for future generations.
- Increased demand in agricultural water.
- The occupation of the Israeli entity of the Syrian Golan and draining of its water resources.
- Low per capita share of water as a result of population growth and decreasing the amount of water from the rivers, especially that Syria largely depends on international watercourses.
- The need to achieve balance between the policies that rely on the extraction of water from sources and increase the quantities supplied and,

from the other side the policies that manage water sources in a flexible, fair and sustainable way.

## **E) The industry sector**

### **1. Importance of the industry in sustainable development in Syria**

The manufacturing industry in Syria is of great importance as the main engine of growth and development; also based in its proliferation, interrelationships and added values. It plays a role in the sustainability of growth by focusing on environment-friendly industries and applying several components of the concept of a green economy, such as cleaner production, clean technology and Clean Development Mechanism (though the concept of green economy is not a technical barrier to international trade). The strengths, weaknesses, opportunities and threats of the industry sector are as follows:

#### **1. Strengths**

- The existence of industrial rooted traditions and a basis of natural resources (oil, agriculture).
- The high level of cheap labor and wages and the existence of basic skills.
- A good of infrastructure, the establishment of equipped industrial cities and continue the establishment of industrial zones, in spite of the need to pursue the processing of tertiary treatment plants.
- Regional location close to vital international markets, the availability of domestic demand and the growing regional demand.

#### **2. Weaknesses**

- The industrial growth is based on extractive incomes, cheap labor and simple manufacturing activities (without targeting the advanced production chains).
- Absence of an industrial investment map (in the geographical and sectorial sense).
- Lack of integrated centers for the treatment of hazardous waste resulting from industrial activities.
- Lack of risk analysis studies of cities and industrial zones, which help to alleviate the risks of emergency and their consequences.

- Weak efficiency of the National Center for Cleaner Production.

### **3. Threats**

- Fragility of regional stability and increased competition from other countries of cheap labor.
- Risk of decreased textile exports, the difficulty of importing advanced production loops to Syria, the neglect of the infrastructure of technology, and resource depletion without added values (potential water and energy exportation within the exportation of textiles to achieving sustainable growth).
- International opening process for a number of emerging economies and the emergence of sub-continental countries (China and India). These countries have mass and competitively high production in many areas, in addition to new products.
- Confront the polluting industries risks on the environment and providing funding and help industrialists to take actions to protect and prevent the environment and development. Amongst these actions, giving soft loans to reduce the spread of polluting industries and their impacts, and enhancing the status of environment-friendly industries.
- Ban from getting access to technology, advanced production technologies and environment-friendly under the unjust sanctions imposed on Syria.

### **4. Opportunities**

- Focus on the concept of industrial activities and production of cluster systems.
- Full and speedy implementation of the Quality National Program.
- Utilization of available resources of new and renewable energies and adopted as a key branch in manufacturing industries (manufacturing components of the production of clean energies) in order to secure the energy needs within the framework of sustainable development, creating new jobs, in turn generating demand for skilled labor.
- Development of the inter-linkage with the rest of the industry's sectors of the economy, and to achieve balanced industrial development (between the



branches of industry and the governorates). Also to develop an investment map for the private and public sectors assisting the expansion of both sectors, allowing also for the growing of industrial investment in size and quality.

- Support for small and medium enterprises through a Fund established in 2011.
- Ability to set up projects to recycle industrial and service activities waste; consequently, creating jobs, improving the environment and reducing pollution that may result from improper disposal of these wastes and their effect on the environment and health.
- Moving towards cleaner production.

## **F) The tourism sector**

### **1. The importance of tourism to sustainable development in Syria**

Syria has the resources and cultural heritage and huge diverse, interdependent and potential in tourism linked with its regional surroundings and with the world history. The country witnessed in the past years a significant tourist renaissance depending on cultural heritage of global importance, and was manifested by a marked increase in foreign tourism. The foreign tourism in turn activated several economic sectors with direct and indirect link to tourism, and supported the state budget foreign currency of value rate challenging the one provided by the unsustainable oil exportation. This relative success has caused in some cases, waste of natural resources and lack of environmental or tourist sustainability and remained away from the depletion of the elements of cultural heritage and was away from adopting an integrated management with development dimension of natural and cultural heritage. The strengths, weaknesses, opportunities and threats of the industry sector are as follows:

#### **1. Strengths**

- A growing contribution to the GDP in and providing new and growing jobs opportunities.

- The existence of a cultural and civilization heritage and the great potential in tourism and is considered as an untapped wealth of cultural, historical, cultural diversity, natural and vital of the most important strengths.
- The diversity of Syrian tourism products forms an advantage for international tourism.
- Geographical location of Syria close to the biggest exporters of tourists, as well as the traditions of hospitality and warm guest reception characterized Syrians.

## **2. Weaknesses**

- weakness of public, private, local tourist bodies and organizational structures.
- The current situation of the Syrian tourism is still lesser than can be exploited as potential opportunities in terms of the number of tourists, the level of investments and the rate of tourism spending.
- Lack of infrastructure in the tourism sector (public utilities and the number of hotels and restaurants), poor management in the ministries concerned, Tourism Chambers and private offices.
- The competition of States to attract tourists and the pursuit of States exporting tourists to reduce departure and encourage domestic tourism; which have impact on the growth of the tourism sector in Syria.
- Reduced demand for local and international tourism as a result of current conditions, which is still affecting the sector since last year, up to now.

## **3. Threats**

- the high level of competition in tourism globally and regionally, especially between countries in the region that sets the investment and big plans to take advantage of attracting tourists and encouraging their citizens to domestic tourism, regional; in particular the Arab Gulf Countries. The large investments in the region received a lot of facilities and incentives to attract same market-generating investments in Syria in general, and tourism in particular.
- The impact of the political situation on the Syrian tourism path, including international pressure, the presence of the Israeli entity that threatens peace in the region and the reluctance of tourists to travel.

- The negative image that compose a sort of pressure from Media, as part of the political pressures that have weakened Syria's tourist image.
- The continuing trend of financial resources and private sector investment into sectors rents at the expense of investment in tourism infrastructure, and the threat of the spread of eco-tourism as a result of real estate projects in the areas of origin is a viable tourist and natural deep-rooted.

#### **4. Opportunities**

- Development of variable and high quality tourism products , with the need to achieve balance between the growing numbers of tourists and tourist infrastructure and trained human frameworks necessary.
- Increase employment opportunities and the usage of cultural heritage to increase link of the growth of tourism with other sectors art crafts and promote the service sector that do not deplete natural resources.
- Improve the social, economic and environmental impacts of the tourism development process.
- Raising the skills of human resources working in the tourism sector and other related sectors.
- Promote the values and mechanisms of Syrian hospitality, and promote the local cultural products.
- The use of tourism as an active tool to achieve balanced regional development and the advancement of quality of life for the less developed regions were resources and tourism resources are located.
- The introduction of environment friendly eco-tourism and developing it as a parallel source to other sorts of tourism.

#### **G) The health sector as a cornerstone for sustainable development**

Despite of the pressure on available resources, including natural and financial ones due to the increased needs of population; yet Syria is still among the few countries that provide free health services on all levels of the health sector.

The health and education sectors are amongst the pillars of the Syrian model of development adopted since several decades.

Health services are provided for low prices and mostly free of charge while the health insurance supports this sector. Moreover, hospitalization and

medicines, in particular for chronic diseases, are also free. Additionally, providing supportive and health programs in public clinics and public health centers that provide health care and vaccines at very prices or free. The State bears the full burden of investment of constructing, maintenance and operating buildings costs, salaries and wages of staff and workers, and other operational costs such as fuel. Therefore, the expenses remain very low though they have been raised in a number of hospitals. Good Manufacturing Practice of pharmaceutical production (GMP), and providing of health insurance. Institutional changes has been introduced and a shift towards decentralization in the sector lead to establishing health institutions with financial and administrative independence, the creation of the Directorate of Environmental and Chronic Diseases in the Ministry of Health, and the establishment of the Strategic Studies for Health Research Centre. In addition to many of the ongoing public programs related to public health or specialized, specific programs, and time-limited ones. Nevertheless, sustainable development and protection of the environment are not amongst the priorities of the Ministry of Health. In fact, the Environmental law is still not effectively implemented with respect to the treatment and management of medical waste, and the awareness is poor regarding the fact that sustainable development is a complementary component to planning in the health sector.

The vulnerability of some communities and regions (in particular the Eastern region), along with the consequences of the international crisis on society affected by the climate change; are main challenges of the State. Moreover, the deterioration of land productivity in light of the high costs of agricultural production and imported material requires the allocation of specific programs and implementing them. The implementation of the 'health promotion program' mentioned in the State Eleventh Five Years Plan, community participation and support for poor villages; all these measures will ease the burden on these communities. Furthermore, the program of restructuring the health sector and support the decentralization would lead to the best use of available resources, if implemented as required; particularly regarding raising the efficiency and feasibility of spending on the sector. The implementation of occupational health program and the program of health and

environmental safety will enable the Ministry to contribute to the achievement of other component of sustainable development.

#### **H) The housing sector, potable and sewage water, and solid waste management**

The State plans aims at establishing organized urban communities, provided with services, utilities and infrastructure. They include necessary subjects of attraction and growth poles, and reflect the cultural heritage and civilization of the Syrian society; bearing in mind that regional planning is associated with environmental conditions. The plans guarantee the right of every family to an appropriate residence, and strengthen the social dimension of housing.

The government worked for many years to provide the required land to establishing residential areas with necessary facilities, sailing and distribution of plots of land, in addition to constructing housing and buildings. The government also works to reduce the gap between supply and demand in the housing market, in terms of quantity and quality, and to balance market prices to commensurate the society's social categories financial capacities.

However, the implemented policies are just directions, procedures and plans; and still far from converting into strategies with specified objectives that ensures the implementation requirements.

Moreover, a gap still exists between supply and demand for housing especially in terms of the acquisition of housing for people with limited income, compared to the presence of tens of thousands of vacant housing units, and the emergence and expansion of settlement areas.

Despite the completion of the national strategy for housing and put it into practice, and the issuing of several laws and legislations (such as the rent law and the real estate development law), yet there is no solution for the informal settlement areas. In fact, actions to reduce the growth of this phenomenon, real estate speculation and lack of laws application exacerbated this problem.

However, informal settlement in Syria is different from that of other developing countries. It is the housing built contrary to the regulations of urban planning and the systems controlling construction. It is also worth mentioning that the state provide all basic services and facilities to these areas:

'drinking water, electricity, telephone, sanitation, education and health ... '.

The non-implementation of legal frameworks governing the contribution of the organized private sector, along with the absence of effective supervision authority, led to the orientation of a large part of investment of the building to settlement areas. Another result is a speculative real estate housing list, which caused sharp rise in house prices. Additional reasons contributed to this situation, especially not to offer the ready- to -built lands to the private sector, so that the private capital invest in real estate investment and the production of housing needs including the needs of low-income people.

According to the State Tenth Five-Years Plan (2006-2010) and Eleventh Five-Years Plan (2011-2015), the emphasis was placed on the housing sector as one of the cornerstones of the pyramid of development; bearing in mind the interdependence and reciprocal relations between economic development policy and housing policies and the defect in one is reflected inevitably on the other. In addition to the goals of the direct and to be achieved, such as the imbalance quantitative and qualitative reform in the equation of supply and demand for the housing market; necessarily to start addressing illegal settlements and its negative consequences.

The solution is to focus on preventive actions that address the causes of illegal settlements and to reduce their expansion. Also allowing a specialized companies to intervene in the illegal settlements, dependent on the evolution of the activity of this sector to create tens of thousands of jobs associated with it (linked to the sector more than 100 career). Moreover, to help young people to settle down, especially as this sector attracts a large proportion of the investments of local, Arab and foreign work in the areas of real estate development and services, and the development of industry of building materials and related items.

In practice, resorted to the state several years ago to introduce a youth housing and provide affordable housing for low income people on concessional terms (state funding a percentage of the required investments and interest-free installments for the duration of time), where the overwhelming response to subscribe to this important project. The indication of the success of this policy

is the economic and social development, especially since the low-income youth, which is the main provider of settlement areas, has recently been expanding youth housing project (targeting construct 50 thousand residential apartments); in parallel with the private sector to encourage investment in this sector.

However, there is a need to move the role of the State from securing housing directly to the citizens of all categories, to the task of facilitating access to adequate housing for each of them according to their needs. The process will accomplish by providing the organized ready- to- built lands, and the sources and conditions of the appropriate funding, as well as increase the supply of prefabricated housing, with emphasis on establishing the concept of social dimensions to the issue of housing. That goes in parallel with the adoption of policies that ensure environmental conservation and optimal use of natural resources; where it is necessary to activate the project bring about a Center for Population Studies. The centre will implement analytical research on population and account for future needs of the population, as it will contribute to the scientific planning and treatment problems of this sector.

**With regard to drinking water and sanitation:**

despite of the fact that Syria is a semi-arid country with a limited water resources, the negative repercussions of climate change and depletion of Israel of water resources in the occupied Syrian Golan, the increase pressure on natural resources and the deterioration of water resources due to urban development and rapid economic development; yet Syria witnessed during the past two decades a substantial decrease in the number of population and communities that have no access to potable water. The proportion of the population benefiting from drinking water networks increased from 84% in 2000 to more than 94% in the year 2010, and the high rate of water production for the same period rose from 920 million cm to 1261 million cm. The number of participants has increased from 2.1 million subscribers in 2000 to more than 3.7 million subscribers in 2010. Syria is still dependent pricing of support social for water sector.

Furthermore, groundwater is the main source of drinking water, is therefore essential to protect water sources from pollution sources in general, as the

dimensions of the sustainable development of water resources stems from the important role of maintaining the quality and integrity to achieve their objective, especially since the sources of pollution are not limited to the population dimension by industrial and agricultural activities, where the results of analyzes indicate the water quality to pollution of surface water and groundwater by sewage and industrial wastewaters. Although it has been the implementation of drainage systems in many cities and towns, and the attainment of all sewer main in 2010 about 200 thousand km, and the arrival of the proportion of people employers networks sanitation to more than 95% in urban areas and 46% in rural areas, it There is a significant shortfall in the number of treatment plants, especially as the population of employers sewage treatment plants is estimated at about quarter of the population.

In the context of the goals Tenth Five-Year Plan (2006-2010) and plan the eleventh (2011-2015), the goals of ensuring safe drinking water and sanitation processor for communities and expansion in rural and urban areas based on the principle of integration and sustainability of water resources among all water users within the basin of water per , and reduce water loss in the institutions of drinking water are still strategic goals through:

- Ensuring safe drinking water for 99% of the population of urban areas and 93% of the population of rural areas.
- Reduction of wastage of water in the institutions of drinking water to 22% of the population of urban areas and 27% of the population of rural areas

Ensure sewage systems for 98% of the population of urban areas and 65% of the population of rural areas, and secure treatment plants, sewage for 85% of the population of urban areas and 15% of the population of rural areas, where they adopted a new approach in the Tenth and the Eleventh Five Years Plans for the establishment of small treatment plants compared to what was previously approved the construction of large plants.



## **Solid waste management in Syria:**

With the growing problem of solid waste in the Syrian governorates and the existing random dumpsites and suffering from the negative environmental impacts on the public health, water and air safety in most of Syrian municipalities, in addition to the visual pollution that appears in the tourist areas near the landfills, which required a strategic critical decision to address the situation and build the Integrated Solid Waste Management system in Syria and provide it with the needed human and financial resources in accordance with a studied methodology.

The Syrian government adopted in 2004 a National Master Plan for solid waste management in Syria, its implementation period is over the period of the tenth and eleventh Five-Year Plans (2006-2015).

The National Master Plan for solid waste management in Syria aimed at:

Formulation of a clear and comprehensive national policy (regional scheme) of solid waste management in Syria.

Adoption of a hierarchy of dealing priorities with access to the integrated solid waste management.

Promoting the integrated management of solid waste (all types of waste, municipal - medical - hazardous).

Develop the needed plans for the investment in the period of 10 years (the tenth and eleventh five-year plans).

Preparation of the general framework for follow-up mechanism of the implementation of the national strategy of solid waste management in Syria.

Creation of solid waste management projects in Syria, based on treatment technologies fitting the characteristics and composition of waste in Syria.

Preparation of preliminary documents to advertise tenders to initiate the implementation of projects in this area.

The adopted solution that for solid waste management sector in Syria was based on the following:

The rehabilitation and closure of the random dumpsites.

Take advantage of recycling materials, and conversion the organic materials, which form about 60% of the total waste composition in Syria, to a good quality compost.

The division of each governorate to a number of sectors depending on the population, the area, and the amount of waste. Each sector includes an integrated solid waste management center, associated with a number of transfer stations.

Each integrated center consists of a waste sorting plant ,composting plant and a sanitary landfill for the residuals, taken into account in the establishment of landfills the conditions of good insulation for cells, the implementation of a drainage network for the leachate, and gas extraction.

In addition to a unit for medical waste treatment (steam sterilization), and a centre for temporary storage of hazardous waste.

Establishing a center for hazardous waste treatment plant.

The result of the technical studies for the governorates was the operational plan for the implementation of the national master plan as follows:

The project	Sanitary landfills	Sorting plants	Composting plants	Transfer stations	Medical waste treatment units	temporary storage of hazardous waste	hazardous waste treatment plant
Total number	44	33	29	120	13	14	1

### The current implementation situation:

Sanitary landfills in Syria:

The implementation until end of 2011						The total number of sanitary landfills according to the technical studies		
Under construction		Implemented and operated		Implemented and did not start the operation		Total cells	Total landfills	
19	17	14	12	13	11	196	44	total

Sorting and composting waste:

The implementation of the sorting and composting plants			Total sorting and composting plants according to the technical studies		
Under construction	Implemented and operated	Implemented and did not start the operation	Composting plants	Sorting plants	
2	0	2	29	33	total

Medical waste treatment units and temporary storage of hazardous waste:

temporary storage of hazardous waste			Medical waste treatment units			Total medical waste treatment units and temporary storage of hazardous waste		
Under construction	Implemented and operated	Implemented and did not start the operation	Under construction	Implemented and operated	Implemented and did not start the operation	temporary storage of hazardous waste	Medical waste treatment units	
0	1	2	3	2	1	14	13	total

Transfer stations:

The implementation until the end of 2011			Total number of transfer station	
Under construction	Implemented and operated	Implemented and did not start the operation		
28	14	40	120	total

### **Fifthly- Syria's expectations on international level; steps forward:**

The United Nations Conference on Sustainable Development (Rio +20) aims at renewing political commitment to sustainable development, assessing progress and remaining gaps, determining the nature of the emerging challenges, and raising two major issues for discussion; these are:

- Institutional framework for sustainable development at national, regional and international levels.
- Green economy in the context of sustainable development and poverty eradication.

During the past two decades, Syria has made great efforts in the development of environmental performance and to achieve social justice in parallel with the support of economic growth. These efforts included the development institutional and legislative environmental structure, and to integrate sustainable development in the State annual and Five Years Plans. Syria developed strategies and environmental plans; signed most of the regional and international conventions related to environment and sustainable development and, committed to the implementation of these agreements and its required obligations.

Based on the fact that sustainable development process in Syria is and still suffering from the repercussions of global crises, including climate crisis, therefore Syria reaffirms its commitment to the principles emerged from the Earth Summit until now, and stressing on the following key points:

- Common but differentiated responsibility principle and the capacities of member states concerned with climate change issues (causes and consequences) in harmony with the principles of sustainable development, global equity, total and mutual impact, liability for the actions taken including historical responsibility of developed countries and the precautionary principle.
- The need to compel Israel to commit to international resolutions, specifically with regard to the occupied Syrian Golan and to restrain from exploiting, damage, cause loss or endangered, its natural resources. Also to desist from

taking any harmful action to the environment, and destroying vital infrastructure.

- The importance of strengthening the institutional framework for sustainable development, to address its gaps at international level and to achieve sustainable development goals stated in international conferences (Rio 1992 and Agenda 21, Johannesburg, and the Millennium Development Goals). Also the importance to focus on the current imbalance at the level of macroeconomic governance, and the need to take into account the institutional framework for balanced integration of sustainable development three pillars: economic, social and environmental.
- The institutional framework should respond to sustainable development needs of all States, bearing in mind the needs of developing countries. Therefore, a flexible approach for common but differentiated responsibilities should be developed. It should also emphasize on the responsibility of developed countries in implementing their commitments to support developing countries to achieve sustainable development. Therefore, there is a need to provide additional, predictable and appropriate funding, and support the process of technology transfer and technology localization, along with capacity building.
- The target institutional framework for sustainable development should not be of any burden on developing countries, including Syria.
- The institutional framework of sustainable development should not address environmental considerations as commercial barriers or conditions to provide development assistance. Nonetheless, a technical and financial assistance should be provided to help developing countries, including Syria, in having access to advanced production technologies, developed technology transfer used in the implementation of vital projects, including projects of clean development mechanisms (CDM), and building national capacities. These technologies should meet all the criteria, including environmental standards, criteria for cleaner production.
- The Green Economy concept should not be a replacement of sustainable development concept, but to be a tool for economic and social development and environmental protection; which is the overarching, wider and paramount goal.

- The institutional framework for sustainable development should enhance coordination between the international, regional, national frameworks; and consistency between the organs and institutions of the United Nations. In other words, the institutional framework will strengthen the role of international bodies and organizations in Sustainable Development, as well as strengthening regional and national institutions and concerned local communities. Therefore, that framework should support the efforts of Syria to reach sustainable development by providing donations and funds of international regional financial institutions, as is the case in other developing countries.
- The institutional framework for sustainable development work on activating and strengthening the participation of representatives of private sector, civil society and other stakeholders at all levels. The main aim is to achieve sustainable development requirements in order to achieve full participation in the decision making, policies' implementation and relevant resolutions.