



**Ministry of Local Administration and Environment
The General Commission for Environmental Affairs
United Nation Development Program/ Global Environment Facility
Self Assessment of National Capacity Building Needs in Syria to
Manage Global Environmental Issues
(NCSA-SYR/05/012)**

**Priority Areas for National Capacity Building
For Implementing the UN Conventions on Conserving
Biological Diversity, Combating Desertification and
Climate Change and Their Synergies in Syria**

**Damascus
August 2007**

**The General Commission for Environmental Affairs
Mazra'a – Damascus TeleFax: +963 11 4471924**



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Acronyms

ACSAD	The Arab Center for the Studies of Arid Zones and Dry Lands.
AOAD	The Arab Organization for Agricultural Development.
BEPSD	Board of Environmental Protection and sustainable development.
CBD	Convention on Biological Diversity (UN).
CETM	carbon Emission Trading Mechanism.
CDI	Capacity Development Initiative.
CEPSD	Council for Environmental Protection and Sustainable Development.
CHF	Clearing House Facility.
COP	Conference of the Parties.
EFDB	emission factors data base.
EIA	Environmental Impact Assessment.
FAO	Food and Agricultural Organization of the UN.
GCEA	General Commission for Environmental Affairs.
GCSAR	General Commission for Scientific Agricultural Research.
GEF	Global Environmental Facility.
GHG	Green House Gases.
GMO	Genetically Modified Organisms.
ICARDA	The International Center for Agricultural Research in Dry Areas.
IPCC	Intergovernmental Panel for Climate Change
MAAR	Ministry of Agriculture and Agrarian Reform.
MLAE	Ministry of Local Administration and Environment.
NAP	National Action Plan.
NBSAP	National Biodiversity Strategy and Action Plan.
NCSA	National Capacity Self Assessment.
NGGIP	National Greenhouse Gases Inventory Program.
NGOs	Non Governmental Organizations.
SBI	Subsidiary Body for Implementation.
SBSTA	Subsidiary Body for Scientific and Technological Advice.
TFB	Task Force Bureau which is connected to NGGIP.
TRIP	International Property Right for Trade
UNCBD	United Nations Framework Convention on Biological Convention.
UNCCD	United Nations Convention on Combating Desertification.

UNFCCC	United Nations Framework Convention on Climate Change.
UNDP	United Nations Development Program.
UNEP	United Nations Environmental Program.
WB	The World Bank.

Contents

1	Objectives	14
2	Executive Summary	15
3	Work Methodology	20
4	Rio Conventions Background	21
4.1	The UN Convention on Biological Diversity (UNCBD).....	21
4.1.1	Main Obligations of the UNCBD	21
4.1.2	The concept of national capacity development in the UNCBD.....	24
4.2	The UN Convention on Combating Desertification (UNCCD).....	25
4.2.1	Obligations of Parties to UNCCD.....	26
4.2.2	The Concept of Capacity Development in the UN Convention to Combat Desertification	26
4.3	UN Framework Convention on Climate Change (UNFCCC)	27
4.4	Kyoto Protocol	28
4.4.1	Commitments of Protocol Kyoto	29
4.4.2	Mechanisms of Kyoto Protocol	29
4.4.3	National Capacity Development in the UN Framework for Climate Change	30
5	Capacity Development in International Environmental Conventions	31
5.1	Levels of Capacity Development.....	31
5.1.1	Capacity Development at the Individual Level	31
5.1.2	Capacity Development at the Institutional Level.....	32
5.1.3	Capacity Development at the Systemic Level	33
5.2	The Concept of capacity development in the International Environmental Conventions and in GEF capacity development initiatives	33
5.2.1	Capacity development in the International Environmental Conventions Mechanisms	34
5.2.2	Capacity Development in GEF	34
5.2.2.1	Standards for Capacity Development in GEF.....	34
5.2.2.2	Indicators for Capacity Development	35
5.3	UN Convention on Biological Diversity (UNCBD).....	35
5.3.1	Capacity Development in UNCBD.....	35
5.3.2	National Priorities for UNCBD Implementation	37
5.3.3	The main challenges/constraints in national capacity to implement UNCBD	38
5.4	UN Convention on Combating Desertification (UNCCD).....	39
5.4.1	Capacity development in UNCCD.....	39
5.4.2	National Priorities for UNCCD Implementation	40
5.4.3	The main challenges/constraints in national capacity to implement UNCCD	41
5.5	UN Framework Convention on Climate Change (UNFCCC)	41
5.5.1	Capacity development in UNFCCC.....	41

A.	Preparation of national communications and reports on gas emissions;	
	41	
5.5.2	National Priorities for UNFCCC Implementation	42
5.5.3	The main challenges/constrains in national capacity to implement UNFCCC.....	43
6	Common Cross-Cuttings (Integration) among the International Environmental Conventions	44
6.1	Principles and approaches.....	44
6.2	Requirements and Recommendations to the Political, Legislative and Economic Framework for Achievement of the Objectives of the Conventions at National Level.....	45
6.3	International cooperation	47
6.4	Systems for management/structures/functions recommended and/or required for the implementation of the Conventions	47
6.5	Information and scientific products required/recommended for the implementation of the Conventions	48
6.6	Participants in implementation	48
6.7	General requirements	49
7	Integration of Capacity Development in the UN Environmental Conventions.....	52
7.1	Technical Synergies between the Conventions.....	52
7.2	Areas on integration among Conventions.....	52
7.3	Importance of integration among Conventions.....	53
8	National Capacity Development Priorities for the Implementation of the Three Conventions	54
8.1	Standards for ranking capacity development priorities in Rio Conventions.....	54
8.2	Ranking of national capacity development priorities in the UN Convention on Biodiversity.....	55
8.3	Ranking of national capacity development priorities in the UN Convention on Desertification Control.....	64
8.4	Ranking of national capacity development priorities in the UN Convention Climate Change.....	73
8.6	Cross-cutting priorities in the three UN Conventions.....	81
9	Challenges/Constrains of the Implementation of UN Environmental Conventions	86
9.1	Themes of challenges/constrains that are common in the capacity development issues for implementation of UN Environmental Conventions	86
9.2	Nature and Causes of Challenges/constrains For National Capacity Development for the Implementation of UN Environmental Conventions	87
9.2.1	The specific activities for each Convention are incomplete and indecisive	87
9.2.2	The Economic Activities Implemented by the Different Sectors Do not Follow the Common Principles, Approaches, Policies and Measures required for the Implementation of the Conventions	88
9.2.3	The Information Required for Decision Making and Carrying out of Activities under the Conventions and Reporting to the Conferences of the Parties is Insufficient, and Incomplete.....	89
9.2.4	The Local Authorities, the Economic Subjects, the Non-Governmental Organizations and the Public are not sufficiently aware and involved in the Implementation of the Conventions.....	90

9.3	Categorization of constraints facing national capacity development for implementation of the UN Environmental Conventions	91
9.3.1	Institutional constraints	91
9.3.2	Systematic constraints	92
9.3.3	Individuals constraints	93
10	Paths Toward Removing Barriers to Capacity Development Constraints	94
10.1	Strategic objective 1: Increased Efficiency of the Work toward Fulfilling the Commitments under the Three Conventions.	94
10.1.1	Specific objective 1.1. Setting Clear Procedures to Support the Implementation of Activities under the Conventions	95
10.1.1.1	Improve the coordination and team work for the fulfillment of the commitments under the three Conventions to elaborate specific programs and/or plans for each one	95
10.1.1.2	Develop and update legislations so that:.....	95
10.1.1.3	More efficient utilization of current and future funds to contribute for the implementation of the objectives of the three Conventions	96
	The can be realized through:.....	96
10.1.2	Specific objective 1.2. Improving the Efficiency of the institutions fulfilling the commitments of the Conventions	96
10.1.2.1	Improve the coordination between the officials in the different institutions at the central and local levels for the implementation of activities under each Convention	96
10.1.2.2	Increase the knowledge and skills of officials at the central and local levels involved in the fulfillment of commitments under the Conventions, on issues of:.....	96
	Improve the mechanism of work groups' work on specific issues of the Conventions.	97
10.2	Strategic objective 2: The Executive Authorities Work Using the Common Principles, Approaches, Policies and Measures, Recommended by the Conventions	97
10.2.1	Specific objective 2.1. All agencies working on implementing the Conventions carry out Activities Aimed at Achieving the Objectives of the Conventions	98
10.2.1.1	Applying the common principles, approaches, policies and measures, recommended by the Conventions into the national, regional and local development strategies and programs	98
10.2.1.2	Improving the efficiency of measures in support of Agro ecology and sustainable use of forests.....	98
10.2.1.3	Authorities involved in the energy sector (Ministry of Electricity and Ministry of Oil) should encourage and support increasing the efficiency of energy use, and the development of renewable and environmentally friendly energy sources of energy	98
10.2.1.4	The Ministry of Local Administration and Environment (MLAE), the Ministry of Agriculture and Agrarian Reform (MAAR), and the Commission for Higher Planning (CHP) should create partnerships with suitable organizations for the implementation of pilot projects to apply the ecosystem approach to ecosystems' functions and/or components that are common to the three Conventions. Such projects will demonstrate opportunities to achieve the objectives of the three Conventions and will develop the capacity to apply the ecosystem approach.	99

10.2.1.5	Education aids the building of behavior conducive to environmental conservation	99
10.2.1.6	The appropriate authorities should provide information about existing affordable and accessible activities and technologies contributing for the achieving of the objectives of the Conventions.	100
10.2.1.7	The Ministry of Labor and Social Affairs can contribute to the fulfillment of the objectives of the Conventions through the following activity:	100
10.2.2	Specific objective 2.2. The officials increase their knowledge and skills for integration of the objectives of the Conventions into their activities.....	100
10.2.2.1	Increase the knowledge and skills of the officials of the Ministry of Finance, Ministry of Agriculture and Agrarian Reform, Ministry of Electricity, Ministry of Higher Education, and the State Planning Commission on the following subjects:	101
10.2.2.2	The control authorities (Customs Offices, and quarantine Offices) should be strengthened by provision of knowledge about the three Conventions and skills to control and implement the legislation related to them.	101
10.2.2.3	The court authorities should be strengthened by provision of knowledge about the three Conventions and skills to implement the legislation related to them.....	101
10.2.3	Specific objective 2.3. The improved interagency coordination leads to successful integration of the objectives of the three Conventions into the sector program documents.....	101
10.2.3.1	The practice of involving experts and coordinators for the Conventions in sector seminars and meetings, and of sector experts in seminars and meetings related to the Conventions should be introduced.	102
10.2.4	Specific objective 2.4. Secured financing to fulfill the commitments under the Conventions	102
10.2.4.1	Secure program for financing from the state budget for national and international activities under the Conventions.....	102
10.2.4.2	A suitable system for financing of the sustainable management of forests should be created.....	102
10.2.4.3	The MAAR should secure compensatory mechanisms for the forest beneficiaries in the events where their benefits are limited.....	102
10.3	Strategic objective 3: The Activities and Decisions for Implementation of the Conventions are based on Adequate Information and Data.....	102
10.3.1	Specific objective 3.1. An Integrated System for Gathering, Processing, Analyzing and Evaluating Data is in Place and the Results are presented through Indicators.....	102
10.3.1.1	A system of sustainable development indicators that involve evaluation of processes related to the Conventions and efficiency of policies, measures and activities for their implementation should start as soon as possible. The indicators should:.....	102
10.3.1.2	Unify the methods and formats for the data for the selected indicators and for the needs of reporting to the Conferences of the Parties to each Convention.....	103
10.3.2	Specific objective 3.2. Scientific Analyses, Products and Information Support the Development, Application and Assessment of the Impacts of Policies and Measures to Implement the Conventions	104

10.3.2.1	Establish a national scientific program for environmental management under the Higher Commission for Scientific Research. The program should provide incentives for scientific research in the following fields:	104
10.3.2.2	Analyze the contribution of strategies, programs and plans for the implementation of the Conventions.	104
10.3.2.3	Use program budgets for the Syrian scientific institutions to build multidisciplinary research groups for the following purposes:	104
10.4	Strategic objective 4: The Local Authorities, Economic Subjects, Non-Governmental Organizations and the Public Support the Implementation of the Conventions	105
10.4.1	Specific objective 4.1. Support of the local authorities to carry out activities to implement the Conventions.	105
10.4.1.1	Train representatives of local authorities in the following fields:	105
10.4.1.2	Facilitate the access to information about the Conventions and the practices for achieving of their objectives, through inclusion of all regional structures involved in implementation of the three Conventions.	105
10.4.2	Specific objective 4.2. The economic subjects are involved in the implementation of the Conventions	106
10.4.2.1	Identify suitable environmental activities and functions that economic subjects can implement. The functions common to the three Conventions that can be implemented by the economic subjects are:	106
10.4.2.2	Provide incentives for introduction of quality control systems.	106
10.4.2.3	Create a permanent mechanism for provision of information to businesses and sector organizations about possible profitable activities related to the implementation of the Conventions.	106
10.4.3	Specific objective 4.3. The Non-Governmental Organizations (NGO) are involved in the Implementation of the Conventions	107
10.4.3.1	Identify activities and functions related to the three Conventions and that NGOs can implement.	107
	The functions that are common to the three Conventions, which can be implemented by NGOs include:	107
10.4.3.2	Improve the financial and economic conditions for implementation of the Conventions by NGOs.	107
10.4.3.3	Encouraging NGOs' involvement in the fulfillment of the commitments under the three Conventions.	107
10.4.4	Specific objective 4.4. The Public is Informed and Involved in the Implementation of the Conventions	108
10.4.4.1	Create and ensure the functioning of mechanisms for exchange of information related to the Conventions.	108
10.4.4.2	The authorities responsible for implementation of Conventions should, in corporation with Ministry of Information, carry out national campaigns to promote the significance of the issues of the three Conventions, and the causes and the ways to overcome the problems.	108
10.4.4.3	Actively involve the media to provide information to the public on the issues of the Conventions and their relation to the individual behavior of people and economic activities.	108
10.4.4.4	Increase the role of parliamentary economic committee on issues related to the Conventions.	108

10.4.5	Specific objective 4-5: Taking traditional knowledge and Obtaining Public Support for National Strategies and Plans	109
10.4.5.1	Raise stakeholder awareness about existing regulatory possibilities for involvement in management decision making concerning the implementation of the Conventions.	109
10.4.5.2	Improve and make operational and more efficient the public involvement mechanisms.....	109
11	Analysis of Environmental Protection Law Number 50 of 2002 in Relation to National Capacity Development to Accomplish Integration among UN Environmental Conventions	110
12	Recommendations.....	115
12.1	Fostering the institutional outlook	115
12.2	Development of a National Program for Sustainable Management of the Environment.....	115
12.3	Fostering the role of the General Commission for Environmental Affairs	115
12.4	Capacity Development at all levels (individual, institutional, and systematic)	116
12.5	Requirements of activities that are common under the three Conventions	117
12.6	Adjustment of planning processes at the national level.....	117
12.7	Development of information base.....	118
12.8	Development of Law No. 50 of 2002 to reflect integration of the three Conventions	119
13	References.....خطأ! الإشارة المرجعية غير معروفة.	
14	Appendix 1. Suggested Framework for National Institutional Capacity Development for the Implementation of International Environmental Conventions in Syria	126

Self Assessment of National Capacity Building Needs in Syria to Manage Global Environmental Issues (NCSA/05/012)

Objectives

The main objectives of the NCSA are to assist the Syrian Government and the national stakeholders to assess capacity-building needs, identify major constraints and priority areas, and develop a strategy and action plan for global management of environmental issues.

Outcome

Sustainable management of environment and natural resource incorporated into poverty reduction strategies/key national development frameworks and sector strategies.

The Principle Activities/Results

- 1- Project launching and management
- 2- Stakeholder analysis determining roles, and responsibilities in the NCSA process.
- 3- Analysis of cross cutting issues and synergies, an identification of options for capacity development, and in depth analysis of priority options.
- 4- National assessment report setting out critical capacity development constraints and NCSA strategy and action plan to meet prioritized capacity needs.

Project Achievements

- 1- Establishment of Project Management Unit.
- 2- Identification of stakeholders involved with environment and implementation of international environmental Conventions.
- 3- Consultation and coordination with stakeholders involved in implementation of activities.
- 4- Project support with national, regional and international expertise.
- 5- Identification of different stakeholders' activities related to implementation of international environmental Conventions, and the results of these activities. This was done through meetings, consultations, and workshops of **thematic** groups, and through research for references at Al-Assad Library, and National Documentation Center...etc.
- 6- Identification of major challenges/obstacles for implementation of each of the international environmental Conventions, and priorities of capacity building in each area. This was achieved through six regional workshops, and a national workshop. Major Constraints and Priority

Capacity Building Needs for implementing the UN Conventions on Biodiversity, Desertification Control and Climate Change were identified during the workshop.

- 7- Identification of Synergies and Cross-Cuttings among the UN Conventions on Biodiversity, Desertification Control and Climate Change during the meeting for the Technical Support Group on 28 March 2007 in Palmyra.
- 8- In-depth analysis of biodiversity activities.
- 9- Publication of the following studies:
 - ◆ Analysis of stakeholders' activities on biodiversity, combating desertification, and climate change (national experts).
 - ◆ Results of technical support groups on a compact disc.
 - ◆ Results of consultation workshops in provinces on a compact disc.
 - ◆ Results of the national workshop on Identification of Major Constraints and Priority Capacity Building Needs for implementing the UN Conventions on Biodiversity, Desertification Control and Climate Change, Damascus, 17 January 2007.
 - ◆ In-depth analysis of biodiversity activities.
- 10- Distribution of publications on stakeholders, Mayors, and participants in workshop and technical support groups.
- 11- Raising environmental awareness at all levels.
- 12- Placing all project publications on the project page of The General Commission for Environmental Affairs website.

Workshops, Work Groups, and Technical Support Groups

A- Workshops

Six Consultative Provincial Workshops were held in six provinces. The main objectives of the workshops were to: (1) discuss stakeholders activities in implementing the three UN Conventions on Biodiversity, Combating Desertification and Climate Change; (2) identify major constraints of implementation; (3) identify priority areas for capacity building; (4) provide awareness about environmental issues; and gain future support of the officials at the provincial level for the outcome of NCSA (the strategy and work plan). The workshops were held in the following provinces:

1. The Middle Area (Hama 15 August 2006).
2. Coastal Area (Lattakia 17 August).
3. Northern Area (Aleppo 23 August).
4. Southern Area (Sweda 18 September).

5. Eastern Area (Hasakeh 23 November).
6. Der El Zor (November 29, 2006).

- ◆ NCSA held a National workshop aiming at identification of major constraints and priority capacity building for implementing the UN Conventions on Biodiversity, Desertification Control and Climate Change on Wednesday, 17 January 2007. Identification of priority areas for capacity building was based on the results of Consultative Provincial Workshops and meetings of **thematic** groups, and studying the analysis of stakeholders' activities in areas of the Rio Conventions implementations.

B- Thematic Work Groups

A **Thematic** work group was formed for each of the UN Convention (biodiversity, combating desertification, and climate change). Each group included representatives of stakeholders involved in implementation of each Convention. The aim of these groups was to contribute to the preparation of activities and needs assessment of capacity building at institutional and systematic levels. The groups held the following meetings:

- 1- **Thematic** groups on biodiversity conservation (Al-Qunaitra, June 2006).
- 2- **Thematic** group on combating desertification (Damascus, June 2006).
- 3- **Thematic** group on climate change (Damascus, July 2006).

C- Technical Support Groups

The objective of the project Technical Support Groups was assessment of studies fulfilled by consultants within the framework of each Convention. The groups held the following meetings:

1. Technical support group for implementation of the international Convention on climate change (Saidnaia, June 2007).
2. Technical support group for implementation of the international Convention on combating desertification (Jabal al-Shiek, 2 July 2007).
3. Technical support group for implementation of the international Convention on biodiversity (Jabal al-Shiek, 23 July 2007).

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**Priority Areas for National Capacity Building
For Implementing the UN Conventions on Conserving Biological
Diversity, Combating Desertification and Climate Changes and Their
Synergies in Syria**

1 Objectives

The objectives of this study are to describe the links and synergies across the three UN Conventions and the institutional and individual linkages between capacity building for global environment management and for local sustainable development. Moreover, the links between each specific capacity constraint and degradation of the global environment shall be illustrated.

2 Executive Summary

A brief review of the objectives of the UN Conventions on Conserving Biological Diversity, Combating Desertification, and Climate Change at national level revealed that the three Conventions fall under the purview of agencies looking after environment and natural resources. Yet, these Conventions are dealt with by separate departments and institutions, often with a high degree of disconnect. Such disconnects lead to ineffective implementation of certain commitments of the Conventions, and consequently sustainable development is not achieved. Synergy in implementation of commitments common to the three Conventions may contribute to realization of sustainable development at the national level.

The exact meaning of term Synergy is “the combined power of a group of things when they are working together which is greater than the total power achieved by each working separately.”

The barriers to achieve synergies are **technical** (lack of understanding of cross-sectoral issues, information, impact assessments etc.), **political** (inter-departmental conflicts, issues of ‘territoriality’, lack of guiding principles and understanding at policy making level) and **cultural** (thoughts of not overstepping boundaries and lack of insight to working at local or ground levels).

In the face of these challenges, there is a need to develop and enhance synergies between the instruments in terms of their implementation at local, national, regional and global levels. In some cases, synergies and integrated approaches exist and can be built upon, and in some cases, efforts are needed to stimulate collaboration, cooperation and harmonization.

Synergy opportunities for implementation of a number of commonalities in the commitments of Rio Conventions, as they were made by parties to the Rio Conventions, are apparent in several areas: for example, all three agreements contain provisions on research, exchange of information, training, public education, capacity building, participation and awareness. Other requirements shared by the three Conventions include national and regional plans and action programs, legislation and reporting. Although theme-specific inputs will be required under each Convention, certain similarities of structural, institutional and supportive nature are evident.

To implement these provisions, parties have established specific mechanisms for each of the Conventions. It is now widely recognized that identifying and developing opportunities for synergy among the various instruments, and finding ways to coordinate and harmonize complementary or overlapping activities can ensure success in the implementation of the agreements and maximize outcomes, especially at the national level.

Synergies between the Rio Conventions with national development strategies, programs and projects on natural resources such as forests, rangelands, wildlife, agriculture, and wetlands are assets that provide economic opportunities and contribute to environmental integrity at the national level, which would reflect positively on regional, and perhaps international, environmental stability.

This study reviews the national priorities for capacity development in Rio Conventions, and ranking those ten priorities according to the following standards:

- A. Importance in policies and legislations development.
- B. Importance in institutional capacity development.
- C. Importance in human capacity development.
- D. Importance in coordination between institutions.
- E. Importance in technology development.
- F. Importance in knowledge and information transfer development.
- G. Importance in handling national environmental issues.

Ranking of national priorities for capacity development for integration of the three Conventions according to the above standards comes as follows:

- 1- Develop sustainable institutional coordination mechanisms;
- 2- Develop clear and systematic integration of the cross-cutting concepts in the national policy and legislation;
- 3- Knowledge management and networking;
- 4- Capacity development for financial mobilization and building partnerships;
- 5- Develop education and research;
- 6- Development of infrastructure facilities;
- 7- Training and rehabilitation;
- 8- Local communities' empowerment and participation.
- 9- Outreach and awareness on synergies among the Conventions; and
- 10- Develop means for technology transfer.

Capacity issues are grouped in a way that allows identification of groups of problems and objectives common under the three Conventions.

Theme 1: Political, economic and legislative framework: constrains in the first theme can be identified through providing answers to the following questions, which may serve as indicators for capacity development in Syria:

- ◆ Are there political support, economic conditions and primary and secondary legislation conducive to the fulfillment of the requirements under the Convention?
- ◆ Is the legislation implemented?

Theme 2: Resources: constrains in the second theme can be identified through providing answers to the following questions, which may serve as indicators for capacity development in Syria:

- ◆ Are the necessary organization structures, human, financial, and information resources available?
- ◆ Do these resources meet the requirements, are they managed well, and do they serve the fulfillment of the Conventions and their sustainable development principles adequately?

Theme 3: Public support: constrains in the third theme can be identified through providing answers to the following questions, which, may serve as indicators for capacity development in Syria:

- ◆ Is the public aware?
- ◆ Does the public support and participate in activities for implementation of the Conventions?

Theme 4: Coordination: constrains in the forth theme can be identified through providing answers to the following questions, which may serve as indicators for capacity development in Syria:

- ◆ Is there any inter-relation between institutions/organizations, processes?
- ◆ Do they work together for efficient implementation of the Conventions?

Challenges/constrains to capacity developed were grouped into three categories; individual level, institutional level, and systematic level.

The study included a strategy to overcome capacity development challenges/constrains. This strategy is based on three major principles:

- ◆ Joined efforts on one Convention with those on the two other Conventions based on their points of contact;

- ◆ The measures for implementation of the Conventions are integrated into Syria's regulatory and economic framework.
- ◆ Measures and activities under one Convention are developed and applied while searching for and/or avoiding damages under the two other Conventions.

Analysis of the interrelations between the specific goals and objectives under each Convention in the context of capacity items, opportunities and weaknesses in integrated management of data in areas common to the three Conventions has led to the development of a set of four strategic objectives to develop capacities for the three Conventions as follows:

Strategic objective 1: Increased Efficiency of the work toward fulfilling the commitments under the three Conventions.

Strategic objective 2: The executive authorities work using the common principles, approaches, policies and measures, recommended by the Conventions.

Strategic objective 3: The activities and decisions for implementation of the Conventions are based on adequate information and data.

Strategic objective 4: The local authorities, economic subjects, non-governmental organizations and the public support the implementation of the Conventions.

The study included an analysis of the environmental protection Law No. 50 of 2002. The analysis revealed that the Law includes texts in a number of articles and items that can form legislative framework for the implementation of the requirements of the international environmental Conventions in each Convention and in the three Conventions together. The law does not have texts that deal directly with the Conventions (Biodiversity, Desertification Control, and Climate Change), and does not include clear texts about the Conventions.

The law can be developed and updated to include the issues that are common under the three Conventions.

The study was concluded with several recommendations, the most important of which are:

1. **Fostering the role of the General Commission for Environmental Affairs:** The political leadership in the country

gave great attention to the environment and environmental issues. Therefore, it is necessary to foster the role of the General Commission for Environmental Affairs in line with the objectives of sustainable development, especially the commitments toward the three Conventions at local, regional and international levels.

2. **Development of a National Program for Sustainable Management of the Environment.** In order to achieve the institutional integration in the field of the three Conventions it is beneficial to develop a National Program for Sustainable Management of the Environment (NPSME) within the General Commission for Environmental Affairs. The program shall include a national committee for coordination between the three Conventions. Members of the committee are representatives of all stakeholders groups.

The NPSME shall be responsible for all environmental activities related to implementation of Rio Conventions in Syria. Working under the umbrella of the Board of Environmental Protection and Sustainable Development (BEPDS), the NPSME shall be responsible for formulation of environmental policies, preparation of environmental plans, and designing activities related to sustainable development of environment for all sectors.

The legislative framework for such program can be found under the Law no. 50 of 2002, particularly Item No. 15 of Article No. 4, and Article No. 19 of the same Law.

3 Work Methodology

The following methodology was used to carry out this study:

- A. Meetings with the National Project Director and coordinating with him in all steps.
- B. Meetings with the Head of the Energy and Environment Group at the UNDP in Damascus.
- C. Reviewing texts of the Conventions, Conventions principles, objectives, and mechanisms.
- D. Studying and analyzing reports of national consultants on national priorities of capacity development to implement the UN Conventions: Biological Diversity, Combating Desertification, and Climate Change.
- E. Consultation with national coordinators of Rio Conventions on national commitments, implementation, challenges/constraints, and priorities.
- F. Reviewing the national legislative and institutional frameworks, and assessing their role in capacity development to promote integration of the Conventions on the national level.
- G. Comparing the Conventions and analyzing common issues among the Conventions.
- H. Studying the national strategies and action plans for the three Conventions.

4 Rio Conventions Background

4.1 *The UN Convention on Biological Diversity (UNCBD)*

The UN Convention on Biological Diversity was an agreement of the International Conference in Rio de Janeiro in 1992, which entered the phase of application in 1993, and was ratified by the Syrian Arab Republic in 1996.

The objectives of the **UNCBD** are:

1. Conservation of biological diversity on three levels, genetic, species and ecosystem.
2. Sustainable use of biological resources.
3. Fair and equitable sharing of benefits arising from the use of genetic resources, including the reach of genetic resources through appropriate means and technologies concerning all rights to reach these technologies and the suitable funding.

4.1.1 Main Obligations of the UNCBD

First: Conservation of Biological Diversity Components

A- Article number 6 of the UNCBD: General measures for conservation and sustainable use:

- 1- Development of national strategies, plans or programs for conservation and sustainable use of biological diversity, or adaptation for this purpose existing strategies, plans or programs.
- 2- Integrating, as far as possible and appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programs and policies.

B- Article number 7 of the UNCBD: identification and monitoring:

- 1- Identification of components of biological diversity important for its conservation and sustainable use.
- 2- Monitoring of components of biological diversity, and paying particular attention to those requiring urgent conservation measures and those, which offer the greatest potential for sustainable use.
- 3- Identification of processes and categories of activities, which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity.

C- Article number 8 of the UNCBD: *In-situ* Conservation:

- 1- Establishment of a system of protected areas or areas where special measures need to be taken to conserve biological diversity.
- 2- Development, where necessary, of guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity.
- 3- Regulation or management of biological resources important for the conservation of biological diversity whether within or outside protected areas.
- 4- Rehabilitation and restoration of degraded ecosystems and promotion of the recovery of threatened species.
- 5- Establishment of means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology.

D- Article number 9 of the UNCBD: *Ex-situ* Conservation:

- 1- Adoption of measures for the *ex-situ* conservation of components of biological diversity, preferably in the country of origin of such components.
- 2- Establishment and maintenance of facilities for *ex-situ* conservation of and research on plants, animals and microorganisms, preferably in the country of origin of genetic resources.
- 3- Adoption of measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions.

E- Article number 11 of the UNCBD: Incentive Measures:

- 1- Adoption, as far as possible and as appropriate, of economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity.

F- Article number 14 of the UNCBD: Impact assessment and Minimizing Adverse Impacts:

- 1- Introduction of appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects.
- 2- Promotion based on reciprocity, notification, exchange of information and consultation on activities under the jurisdiction or control which are likely to significantly affect adversely the

biological diversity of other states or areas beyond the limits of national jurisdiction.

Second: Sustainable Use of Biological Diversity Components

A- Article number 10 of the UNCBD: Sustainable Use of Biological Diversity Components:

- 1- Integration of the conservation and sustainable use of biological resources into national development strategies.
- 2- Protection and encouragement of customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

Third: Fair and equitable sharing of befits arising from the use of genetic resources

A- Article number 15 of the UNCBD: Access to Genetic Resources

- 1- Recognizing the sovereign rights of states over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.
- 2- Each UNCBD party shall endeavor to create conditions to facilitate access to genetic resources for environmentally sound uses by other UNCBD parties and not to impose restrictions that run counter to the objectives of this Convention.
- 3- Each UNCBD party shall endeavor to develop and carry out scientific research based on genetic resources provided by other CBD parties with the full participation of, and where possible in, such parties.

B- Article number 19: Handling of Biotechnology and Distribution of its Benefits

- 1- Each UNCBD party shall take legislative, administrative or policy measures, as appropriate, to provide for the reflective participation in biotechnological research activities by those CBD parties, especially developing countries, which provide the genetic resources for such research.
- 2- Each UNCBD party shall take all practicable measures to promote and advance priority access on a fair and equitable basis by parties, especially developing countries, to the results and benefits arising from biotechnologies based upon genetic resources provided by those parties.

Fourth: General Issues

A. Article number 13: Public Education and Awareness

- 1- Promotion and encouragement of understanding of the importance, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programs.
- 2- Cooperation, as appropriate, with other states and international organizations in developing educational and public awareness programs, with respect to conservation and sustainable use of biological diversity.

B. Article number 12: Research and Training

- 1- Establishment and maintenance of programs for scientific and technical education and training in measures for identification, conservation and sustainable use of biological diversity and its components.
- 2- Promotion and encouragement of research, which contributes to the conservation, and sustainable use of biological diversity.
- 3- Promotion of cooperation with other states in the use of scientific advances in biological diversity research.

C. Article number 16: Access to and Transfer of Technology

- 1- Provisions for providing and/or facilitating access for and transfer to other parties of technologies that are relevant to the conservation and sustainable use of biological diversity.
- 2- Transfer of technology includes results of scientific, economic and social researches, and information related to research, training, and traditional knowledge programs.

D. Article number 18: Technical and Scientific Cooperation

- 1- Promotion of international technical and scientific cooperation in the field of conservation and sustainable use of biological diversity, where necessary, through the appropriate international and national institutions.
- 2- Cooperation in the fields of training and expertise exchange in technology development.

4.1.2 The concept of national capacity development in the UNCBD

Though the Convention on biological diversity does not include a particular article on capacity building, several articles contain capacity building concepts. Secretariat of UNCBD identified the following themes

for capacity building to realize the integrated implementation of the Convention:

- 1- Integrating Biodiversity into National and Sectoral Development Plans and Policies;
- 2- Promoting the Use of Economic and Command and Control Instruments for the Sustainable Management of Biodiversity;
- 3- Driving Production and Use of Biodiversity Indicators;
- 4- Strengthening Research Capacity and Technological Development;
- 5- Strengthening Rural and Indigenous Capacity in Biodiversity Management;
- 6- Strengthening Protected Areas Systems;
- 7- Developing Strategies, Plans and Education Programs on Conservation and Sustainable Biodiversity Use;
- 8- Developing Mechanisms for Genetic Resources Access and Sustainable Use.

4.2 The UN Convention on Combating Desertification (UNCCD)

The United Nations Convention to Combat Desertification (UNCCD), was adapted in Paris (France) on the 17th of June 1994, and entered into force in 1996.

The Syrian Arab Republic (SAR) participated in the world summit in Rio in 1992 and took a part in the layout of Agenda 21, and signed the Convention on October of 1994, and ratified the Convention in 1997.

The main goal of the Convention is to take effective measures to combat desertification and mitigate the impact of drought, in countries suffering of severe drought or desertification. This should be done through integrated approach, in conformity with Agenda 21 principles with the purpose of achieving sustainable development in affected areas.

The UN Convention on Combating desertification acts through several principles which the essence of the Convention and themes for implementation around the globe, these principles are: participation of local communities in identifying priorities for combating desertification, and formulating programs to face desertification; national, regional and international cooperation and building partnership for the purpose of combating desertification and sustainable management for lands.

4.2.1 Obligations of Parties to UNCCD

- 1- Adoption of an integrated approach to address the physical, biological and socio-economic aspects to combat desertification;
- 2- Integrating issues of combating desertification into all national development policies, particularly in strategies for poverty eradication.
- 3- Allocating sufficient funds for the efforts of combating desertification, and regarding that as a national priority in development basis.
- 4- Development of a national strategy and action plan for combating desertification in a participatory approach, with special concentration on integrated management for desertification-threatened ecosystems.
- 5- Development of regional and international partnership for the purpose of combating desertification and exchange of knowledge and expertise in this field.
- 6- Development of international cooperation in the fields of combating desertification through practical programs and exchange of technology and expertise.
- 7- Collection, documentation and analysis of information, technology, and work relevant to combating desertification and information exchange on local, regional and international levels.
- 8- Providing support for research, training and education in the fields of combating desertification and sustainable management of lands with special attention to the needs of local communities.
- 9- Development, transfer and adoption of technology appropriate to local conditions for combating desertification.
- 10- Concentration on capacity building, education, and awareness.

4.2.2 The Concept of Capacity Development in the UN Convention to Combat Desertification

Article 17 of the UNCCD is specific to capacity building, education and public awareness. This article identified several principles and directions for capacity in the Convention:

1. Full participation at all levels of local people, particularly at the local level, especially women and youth, with the cooperation of non-governmental and local organizations;

2. Strengthening training and research capacity at the national level in the field of desertification and drought;
3. Establishing and/or strengthening support and extension services to disseminate relevant technology methods and techniques more effectively, and by training field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources;
4. Adapting, where necessary, environmentally sound technology and traditional methods for natural resources management in national and international cooperation programs.
5. Establishment of innovative ways of promoting alternative livelihoods, including training in new skills;
6. Training and capacity building in the field of early warning for drought;
7. Capacity building in the field of developing national indicators for desertification;
8. Development and management of effective cooperation networking on the local, regional and international levels for the purpose of capacity building.

4.3 UN Framework Convention on Climate Change (UNFCCC)

The agreement was adopted in the (Earth Summit) Conference of the United Nations in Rio de Janeiro in Brazil in 1992. The agreement went into effect in 1994. The number of countries, which ratified the agreement, was 190. Syria signed the agreement, ratified it in 1996, and went into effect in 2005.

Article 2 of the Convention states the objective, which is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level (according to 1995 levels) that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

Commitments of industrial, rich nations include: modification of policies and measures in the fields of energy conservation; reducing green gas emissions; providing a positive example of leadership and development in the fields of global environment protection; providing financial support to empower developing countries in application of activities and projects aiming at reducing green gas emissions, and helping these countries to

adapt to the potential impacts of climate change; and to take all possible practical measures to encourage transfer of environmentally friendly technology to developing countries.

Commitments of developing countries are limited to preparing national Communication about emissions from sectors: energy, transportation, industries, agriculture, municipalities, and housing. This commitment is present in several articles of the Convention (4, 5, 6, and 12). Other non-binding activities required from developing countries include integration of climate change policies in the national policies; implementing education and awareness programs; and provision of scientific research and information exchange.

The treaty contains general articles that require the parties to encourage scientific research on monitoring gas emissions, and determining impacts of climate change on the parties. The general articles of the treaty also concentrate on capacity building, awareness, education, and exchange of information relevant to climate change.

4.4 *Kyoto Protocol*

After two and a half years of intense negotiations, the Kyoto Protocol was adopted at COP 3 in Kyoto, Japan, on 11 December 1997. Kyoto Protocol shares the Convention's objective, principles and institutions, but significantly strengthens the Convention by committing industrial countries to reduce greenhouse gas emissions below levels specified for each of them in the treaty by the year of 2015.

The complexity of the negotiations, however, meant that considerable "unfinished business" remained even after the Kyoto Protocol itself was adopted. The Protocol sketched out the basic features of its "mechanisms" and compliance system, for example, but did not explain the all-important rules of how they would operate. Although 84 countries signed the Protocol, indicating that they intended to ratify, many were reluctant to actually do so and bring the Protocol into force before having a clearer picture of the treaty's rulebook. The Kyoto Protocol entered into force on 16 February 2005.

The Protocol has developed a number of mechanisms such as emissions trade, clean and sustainable development, common application and carbon removal.

4.4.1 Commitments of Protocol Kyoto

- a- Designing and implementing national programs to reduce the impacts of climate change, and adapt to its impacts.
- b- Determination of national mechanisms for carbon isolation.
- c- Encouraging transfer and adoption of technologies, those are friendly to environment and climate.
- d- Encouraging cooperation in scientific research on observation of climate change impacts, and response strategies.

4.4.2 Mechanisms of Kyoto Protocol

a- Clean Development Mechanism (CDM)

The clean development mechanism (CDM) defined in Article 12 provides for Annex I Parties to implement project activities that reduce emissions in non-Annex I Parties, in return for certified emission reductions (CERs). The CERs generated by such project activities can be used by Annex I Parties to help meet their emissions targets under the Kyoto Protocol. Article 12 also stresses that such project activities are to assist the developing country host Parties in achieving sustainable development and in contributing to the ultimate objective of the Convention.

C- Carbon Emissions Trading Mechanism (CETM)

Emissions trading, as set out in Article 17 of the Kyoto Protocol, provides for Annex I Parties to acquire units from other Annex I Parties and use them towards meeting their emissions targets under the Kyoto Protocol. This enables Parties to make use of lower cost opportunities to reduce emissions, irrespective of the Party in which Party those opportunities exist, in order to lower the overall cost of reducing emissions.

Only Annex I Parties to the Kyoto Protocol with emission limitation and reduction commitments inscribed in Annex B to the Protocol may participate in such trading. Such Parties may, therefore, be prepared to transfer units when they do not require them for compliance with their own emission targets.

4.4.3 National Capacity Development in the UN Framework for Climate Change

The Convention through its executive committee developed in 2004 a group of suggestions about capacity building in developing countries from its National Communications. The most important themes are the following:

- 1- Developing capacities in the field of national communications and inventory compilation.
- 2- Developing institutional capacities in developing policies and national plans on climate change.
- 3- Developing technical capacities to follow and compile emissions of greenhouse gasses (GHG).
- 4- Evaluating the vulnerability and adaptation of developing countries to effects of climate change.
- 5- Developing capacities in training and public awareness on the reasons for climate change and how to deal with it.
- 6- Developing capacities in clean development mechanism and carbon emission trading mechanism.
- 7- Developing capacities in transfer of promising and sustainable technologies.

5 Capacity Development in International Environmental Conventions

The United Nations Development Program (UNDP) and the Global Environment Facility (GEF) use the term capacity development instead of capacity building because the first term is more comprehensive and includes continuity and development of existing capacities, while the term capacity building implies the absence of any capacities, therefore, starting from scratch.

UNDP defined capacity development as *the ability of individuals, institutions and broader systems to perform their functions effectively, efficiently and in a sustainable way*. GEF has developed a definition for capacity development similar to that of UNDP. GEF defined capacity development as *the activities required to improve capacity of individuals, institutions, and systems to take and implement decisions, and to fulfill tasks effectively in a sustainable way*. This definition is appropriated for assessment of implementation of national projects related to Rio Conventions.

The concept of capacity development relates, in general, to development of human resources, training, and institutional education and knowledge. Capacity development at the individual, institutional and systematic levels are considered central elements in capacity development.

5.1 Levels of Capacity Development

5.1.1 Capacity Development at the Individual Level

Capacity development at the individual level, refers to the process of changing attitudes and behaviors, most frequently through imparting knowledge and developing skills through training. However, it also involves learning by doing, participation, ownership, and processes associated with increasing performance through changes in management, motivation, morale, and levels of accountability and responsibility.

Indicators for Capacity Development at the Individual Level:

- a. **Work skills:** Are there clear description of practical tasks? Does the individual possess the necessary skills to successfully achieve the work he is assigned to?
- b. **Professional development:** Do individuals have opportunities to develop their professions in pure professional manners?

- c. **Training:** Are there suitable training programs to enhance work capacities required from the individuals?
- d. **Capacity to communicate:** Do individuals have effective communication skills? Do they have the capacity to exchange information among themselves effectively?
- e. **Access to information:** Are individuals able to access necessary information when they need too?
- f. **Performance:** Is performance level of individuals measured in accurate and professional ways.
- g. **Moral and physical incentives:** Are there moral and physical incentives for individuals?
- h. **Accountability and supervision:** Are their subjective systems for accountability, and performance supervision? Are under-achievers held accountable?

5.1.2 Capacity Development at the Institutional Level

Capacity development at the institutional level focuses on the overall performance and functioning capabilities, such as developing mandates, tools, guidelines and information management systems for the ability of the institution to adapt to changes. It aims to develop its constituent individuals and groups, as well as its relationship to the outside.

Institutions can be governmental or non-governmental, local or national, and formal or informal.

Indicators for Capacity Development at the Institutional Level:

- a. **Vision and strategic objectives:** Do the institution have clear vision and strategic objectives?
- b. **Administrative framework:** Is the institutional framework effective and suitable? Are the administrative systems capable of realizing the vision and strategic objectives?
- c. **Administrative processes:** Are the administrative processes (planning, assessment, monitoring...) which take place at the institution level effective.
- d. **Human resources:** Are human resources numbers, training, and skills enough to perform the tasks required from the institution? Is there capable management and allocation of funds?
- e. **Information resources:** Is the information required available and effectively managed?
- f. **Infrastructure:** Is the institutional and administrative infrastructure that is needed for the institution to perform its

activities available? Is there an effective management for the infrastructure (buildings, offices, vehicles, equipment)?

5.1.3 Capacity Development at the Systemic Level

The systemic level capacity development is concerned with the creation of enabling environments, i.e. the overall policy, economic, regulatory, and accountability frameworks within which institutions and individuals operate. Relationships and processes between institutions, both formal and informal, as well as their mandates, are also important.

Indicators for Capacity Development at the Systematic Level:

- a. **Policies:** Is the political framework suitable?
- b. **Legislative framework:** Are the existing legislations enough? Are the legislations applied effectively?
- c. **Administrative accountability:** Are the institutions subject to accountability in a way that insures adjustment and improvement of performance?
- d. **Economic framework:** Are there effective and appropriate economic mechanisms for management of activities required from the institution and individuals?
- e. **Processes and relations:** Are there suitable systems that control relations and processes that are common among institutions?

5.2 *The Concept of capacity development in the International Environmental Conventions and in GEF capacity development initiatives*

Capacity development in the three International Environmental Conventions is a main component of the Conventions objectives and implementation tools. Standards development for capacity development in the three Conventions and the initiatives relevant to the Conventions is done through two mechanisms:

- a. Conventions mechanisms (conference of parties, scientific and technical groups), which work on developing special standards and guidelines for capacity development programs in each Convention.
- b. The Global Environment Facility (GEF), which is considered the financial and technical mechanisms for

Conventions implementation, contributes to development of standards for capacity development, which fall under the projects supported by GEF to implement the Conventions.

5.2.1 Capacity development in the International Environmental Conventions Mechanisms

Texts, initiatives and mechanisms of the International Environmental Conventions contain standards and guidelines particular to capacity development in each Convention. These standards can be used to identify national priorities for capacity development, and subsequent development of national action plan for capacity development.

5.2.2 Capacity Development in GEF

Responding to guidance from the global Conventions, the GEF Secretariat worked with UNDP to launch an initiative in January 2000, to gain a better understanding of the capacity needs of developing countries, and how these needs can be met. The Capacity Development Initiative (CDI) was developed by GEF for the above-mentioned purpose. In 2003, the board of GEF sat up a group of different executive programs for capacity development emerged from the CDI; each of these programs targets a set of objectives for implementation of UN Conventions on Biodiversity, Combating Desertification, and Framework on Climate Change.

5.2.2.1 Standards for Capacity Development in GEF

The board of GEF approved a group of important standards for capacity development initiatives and programs. These standards are;

- A. Broad national ownership of projects.
- B. Involvement of all stakeholders in the decision-making process.
- C. Suggestions on capacity development are based on self-assessment of national needs and priorities.
- D. Use of holistic approach for capacity development at individual, institutional, and systematic levels.
- E. Integration of capacity development efforts in the broad sustainable development schemes.

- F. Encouragement of partnership among different institutions, with special emphasis on local initiatives.
- G. Use of learning-by-doing approach.
- H. Consistency with principles and standards of the Conventions.

5.2.2.2 Indicators for Capacity Development

GEF, as part of the CDI partnership, suggested that the following indicators for capacity development be used to develop capacity development projects, and assess their success during implementation:

- (a) Awareness and knowledge;
- (b) National policy, legal and regulatory frameworks;
- (c) Institutional mandates, coordination, and processes for interaction and cooperation between all stakeholders;
- (d) Information management, monitoring and observation;
- (e) Mobilization of science in support of decision-making;
- (f) Financial resources and technology transfer;
- (g) Incentive systems and market instruments;
- (h) negotiation skills;
- (i) Cooperation and networking within regions;
- (j) Institutional management and performance; and
- (k) Individual skills and motivation in key institutions.

5.3 UN Convention on Biological Diversity (UNCBD)

5.3.1 Capacity Development in UNCBD

The UNCBD does not include specific articles on capacity development, but this scope is spread over many other thematic and operational articles that include obligations related to capacity development. The main capacity development themes in the CBD are those related to technology transfer, and technical and scientific cooperation. Capacity development in UNCBD relies on technical training and information exchange through the clearinghouse mechanism. Capacity development is considered a main component in development of national strategies and action plans for biological diversities.

Practical programs of UNCBD concentrate on regional and international cooperation, particularly among the south states.

The following is a collective listing of major obligations and requirements of the UNCBD that are directly linked to capacity development issues:

- A. Integrating biodiversity into national and sectoral development plans and policies integrating conservation and sustainable biodiversity use in a balanced way into national and sectoral development plans and policies is perhaps the line of action that has gathered the most consensus and taken on the greatest complexity for its development in most developing countries.
- B. Promoting the use of economic and command and control instruments for the sustainable management of biodiversity: instruments for environmental management that promote conservation and sustainable biodiversity use need to be developed or updated (including economic incentives, command and control, and others).
- C. Driving production and use of biodiversity indicators: there is high consensus on the importance of information for assessment and decision-making on conservation and sustainable biodiversity use. This is also true for the measurement of policy performance and programs with this goal, as well as for the organizations responsible for their execution.
- D. Strengthening research capacity and technological development: several articles of the UNCBD establish the need to promote and increase research and technological development to contribute to conservation and sustainable biodiversity use. The parties consider access and technology transfer to be one of the means for strengthening the research and technological capacity of the countries. The creation of conditions favorable to research on biotechnology is another means, so that countries that provide genetic resources, in particular developing countries, can participate in it.
- E. Strengthening rural and indigenous capacity in biodiversity management: it is necessary to develop the capacity of town and indigenous community organizations, as well as that of rural and other local communities for the preparation and implementation of land development plans, including community management of ecosystems, as well as institutional capacity development at the national, provincial and local levels that responds to and supports land plans and the community management of ecosystems.
- F. Strengthening protected areas systems: *in-situ* conservation is one of the modalities considered in the UNCBD and within it; protected areas have an essential role.

- G. Developing mechanisms for genetic resources access: at the bottom of the relationship between genetic resources and biotechnology is one of the most promising industries of the next decades in various fields of economic activity (pharmaceutics, agro-industry, cosmetics, etc.). Behind this issue is also the consistency between the obligations entered into by the countries under the framework of the UNCBD and in the agreement on Intellectual Property Rights for Trade (TRIP) and in the case of ex situ collections acquired before the UNCBD and that are not being regulated by the FAO Commission on Genetic Resources for Agriculture and Nutrition.
- H. Capacity development in the Cartagena Protocol: Capacity development is a key prerequisite for the effective implementation of the Cartagena Protocol on Biosafety. In order to be able to implement their obligations, parties need appropriate institutional mechanisms and infrastructure, well-trained human resources, adequate funding as well as easy access to relevant information.

5.3.2 National Priorities for UNCBD Implementation

Based on the results of six Consultative Provincial Workshops, three Technical Working Groups, and the Analysis of Stakeholders' Activities the participants in the National Workshops that was held in Damascus on January 17, 2007 identified 13 national priorities of implementation of the activities related to the UN Convention on Biodiversity. These priorities are:

1. Develop a strategic coordination mechanism among stakeholders working in Biodiversity;
2. Develop a national knowledge management and data processing system for monitoring and reporting on biodiversity;
3. Strengthen the institutional and legislative framework for regulating access to genetic resources and benefits sharing;
4. Develop an institutional mechanism for assessing the impact of regional and international agreements on biodiversity;
5. Develop national management guidelines for conservation sites;
6. Strengthen capacity for mobilizing financial resources available for biodiversity;
7. Develop national directives for biodiversity Impact Assessment;
8. Integrate the main concepts of the UN Convention on Biodiversity Conservation in the national development policies;

9. Develop national capacity for *in-situ* conservation outside protected areas including capacity for community management;
10. Empower local community management of biodiversity;
11. Develop linkages between research and policy making, and develop national policies for regional and international technology transfer;
12. Develop long- term programs for awareness and education on new concepts in biodiversity management;
13. Develop systems for economic incentives and valuation of biodiversity components.

5.3.3 The main challenges/constraints in national capacity to implement UNCBD

Based on the results of six Consultative Provincial Workshops, three Technical Working Groups, and the Analysis of Stakeholders' Activities the participants in the National Workshops that was held in Damascus on the 17th of January 2007 identified, the following constraints facing implementation of the activities related to the UN Convention on Biodiversity:

First: Major Constraints for Implementing the UN Convention on Biodiversity

- 1- Weak coordination mechanism(s) among stakeholders;
- 2- Administrative difficulties at the national and the international levels in certain cases, and incompatibility of financial and administrative procedures among international donors and national executing stakeholders;
- 3- Weak institutional and legislative framework of regulating accesses to genetic resources and benefits sharing;
- 4- Lack of national directives for biodiversity impact assessment;
- 5- Low number of the specialized cadre in Biodiversity;
- 6- Weak integration of the UN Convention on Biodiversity Conservation main concept in the national policy formulation process;
- 7- Lack of clear national policies for regional and international technology transfer, and weak linkages between scientific research and policy making;
- 8- Weak participation of local communities in the projects;

- 9- Lack of institutional processes for assessing the impacts of development projects on biodiversity, and lack of economic incentives and valuation of biodiversity;
- 10- Slow mobilization of financial resources available for implementing the National Strategy of biodiversity;
- 11- Lack of long-term programs for awareness and education on the new concepts of biodiversity.

Major Constraints for Protected Areas:

- 1- Weak institutional and legislative framework and administrative work plans for the protected areas;
- 2- Minor role of the local societies in managing the protected areas;
- 3- Low financial resources;
- 4- Lack of public awareness of the benefits of the protected areas;
- 5- Lack of professional cadre to manage the protected areas.

5.4 UN Convention on Combating Desertification (UNCCD)

5.4.1 Capacity development in UNCCD

Article 17 of the UNCCD is specific to capacity development, education and public awareness and it identifies a group of principles and orientations on capacity development as follows:

- a- Effective participation of local communities in the efforts of capacity development to empower these communities in sustainable management of natural resources and to combat desertification;
- b- Strengthening training and research capacity at the national level in the field of desertification and drought;
- c- Establishing and/or strengthening support and extension services to disseminate relevant technology methods and techniques more effectively, and training field agents and members of rural organizations in participatory approaches for the conservation and sustainable use of natural resources;
- d- Fostering the use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programs, wherever possible;
- e- Developing innovative ways of promoting alternative livelihoods, including training in new skills;
- f- Training and capacity development in the field of early warning for drought;

- g- Capacity development in the fields of national desertification indicators development;
- h- Development and management of effective cooperation networks on the local, regional and international levels for the purpose of capacity development.

5.4.2 National Priorities for UNCCD Implementation

Based on the results of six Consultative Provincial Workshops, three Technical Working Groups, and the Analysis of Stakeholders' Activities the participants in the National Workshops that was held in Damascus on January 17, 2007 identified 13 national priorities of implementation of the activities related to the UN Convention on Combating Desertification. These priorities are:

- 1- Develop a national land use policy;
- 2- Consider desertification control a national development priority and allocate financial resources needed;
- 3- Develop sustainable management for water resources;
- 4- Develop guidelines for the rehabilitation of degraded land;
- 5- Strengthen linkages between scientific research and policy making;
- 6- Develop educational and training programs on sustainable land management and desertification control for all levels;
- 7- Identify the role and responsibilities of stakeholders working on desertification control and develop a coordination mechanism among them;
- 8- Develop a national indicators system to monitor desertification, drought and to management knowledge;
- 9- Strengthen capacity for outreach and networking with regional and global organizations and programs;
- 10- Empowerment local communities to develop sustainable livelihood and document traditional knowledge in the fields of Desertification Control;
- 11- Develop systems for economic valuation of the costs of land degradation;
- 12- Develop an institutional mechanism to evaluate the impacts of regional and international economic and agriculture agreements on land management;
- 13- Strengthen the concept of the "*ecosystem approach*" in national policies and programs to combat desertification.

5.4.3 The main challenges/constraints in national capacity to implement UNCCD

Based on the results of six Consultative Provincial Workshops, three Technical Working Groups, and the Analysis of Stakeholders' Activities the participants in the National Workshops that was held in Damascus on the 17th of January 2007 identified, the following constraints facing implementation of the activities related to the UN Convention on Combating Desertification:

- 1- Poor coordination among stakeholders;
- 2- Weak integrated management of natural resources especially those of soils and water;
- 3- Weak legislations and their enforcement;
- 4- Weak scientific and socio economic research and studies directed towards combating desertification;
- 5- Weak educational and training programs for various target groups on sustainable land management;
- 6- Weak national institutional and individual capacity development to identify and manage desertification control schemes.

5.5 UN Framework Convention on Climate Change (UNFCCC)

5.5.1 Capacity development in UNFCCC

The Convention through its technical and executive committees developed in 2004 an integrated program and framework for capacity development to implement the Convention objectives. This was based on article 6 of the Convention on education, training and environmental education.

This framework for capacity development includes a group of priorities that were drawn out developing countries communications, and the objectives of the Convention. The main priorities are:

- A. Preparation of national communications and reports on gas emissions;
- B. Management of data base on emissions;
- C. Strengthening national institutional capacities;
- D. Assessment of vulnerability and adaptation to climate change;
- E. Strengthening capacity to implement adaptation measure.

The Convention through its executive committee developed in 2004 a number of suggestions in capacity building from analysis of national

communications of the developing countries. The most important suggestions are:

- 8- To develop capacities in the field of national communications and inventory compilation;
- 9- Sustain capacities in developing strategies and national plans on climate change;
- 10-Develop technical capacities to follow and compile emissions of GHG;
- 11-To evaluate the vulnerability and adaptation of developing countries to effects of climate change;
- 12-To sustain capacities in training and public awareness on the reasons for climate change and how to deal with it;
- 13-Develop capacities in clean mechanism and carbon trading; and
- 14-Develop capacities in transfer of promising and sustainable technologies.

5.5.2 National Priorities for UNFCCC Implementation

Based on the results of six Consultative Provincial Workshops, three Technical Working Groups, and the Analysis of Stakeholders' Activities the participants in the National Workshops that was held in Damascus on January 17, 2007 identified 13 national priorities of implementation of the activities related to the UN Conventions on Climate Change. These priorities are:

1. Develop capacity development for implementing GHG mitigation measures;
2. Provide economic incentives for climate change mitigation and adaptation;
3. Strengthen institutional and technical capacity development for the Climate Change Focal Point;
4. Develop linkages between policy making and research, and national policies of technology transfer at the regional and international levels;
5. Integrate the UNFCCC main concepts in the national policy formulation process;
6. Develop capacity for rational and efficient uses of energy;
7. Develop practical education and training programs;
8. Capacity development for knowledge management and networking;
9. Develop quality national communication reports;
- 10.Capacity development for national GHG inventory;
- 11.Capacity development for national adaptation plans;

12. Create environment for utilization of renewable energy and encouraging this direction;
13. Development capacity for resource mobilization.

5.5.3 The main challenges/constraints in national capacity to implement UNFCCC

Based on the results of six Consultative Provincial Workshops, three Technical Working Groups, and the Analysis of Stakeholders' Activities the participants in the National Workshops that was held in Damascus on the 17th of January 2007 identified, the following constraints facing implementation of the activities related to the UN Convention on Climate Change:

- 1- Lack of projects and studies and budgets especially in the field of impacts of climate change on bio-systems in Syria;
- 2- Weak coordination among stakeholders;
- 3- Absence of updating available data basis and low accessibility to information;
- 4- Weak institutional and technical capacity development for climate change;
- 5- Low levels of awareness on climate change;
- 6- Freezing the National Committee of climate change, and lack of clear-cut of its mechanism.

6 Common Cross-Cuttings (Integration) among the International Environmental Conventions

The analysis of the texts of the three Conventions, their protocols, the decisions by the Conferences of the Parties and recommendations of working groups and meetings have allowed a number of common points to be identified (Table 1). This analysis helps in identification of the possibilities for joint activities that aid in the concurrent fulfillment of the commitments under the three Conventions, or at least two Conventions without damage to the third.

The common points under the three Conventions are summarized as follows:

6.1 Principles and approaches

The common principles and approaches recommended by the three Conventions include:

- **Preventive measures** for protection and conservation of environmental media or reduction of emissions and pollutants related to the Conventions;
- Policies and measures consistent with **sustainable development**. This principle requires the countries to implement such policies and measures which are not harmful to environmental media and are conducive to economic and social development;
- **Equal responsibilities and differentiated obligations** between the parties involved in fulfilling the objectives of the Conventions. On the one hand, this principle determines the need for efforts by all participants for implementation of the Conventions. On the other hand, it provides for some countries (mainly developed) to assume higher financial obligations and to support developing countries to fulfill their commitments through the Global Environmental Facility and through bilateral agreements and programs. Syria is eligible for such assistance;
- **Measures encouraging the use of accessible and affordable technologies**;
- Incentives for **sustainable use of resources**;
- **Incentives for sustainable use** of environmental resources.
- **Integral approaches** for simultaneous resolution of issues related to the Conventions and to development;
- **Integration** of the objectives of the Conventions into the **development programs**;

- **Ecosystem approach** where efforts are aimed at preserving the ecosystems and their functions in the context of development instead of preservation of individual environmental media.

These common principles and approaches have several cross-cuttings:

First: they are related, they complement one another and they justify one another. One example is the principles for consistency of policies and measures with sustainable development and for introduction of incentives for sustainable use of resources.

Second: some principles and approaches focus on the relationships between the parties, and others focus on the implementation of the Conventions by each country. For example, the principle of equal responsibilities and differentiated obligations relates to the relations between the countries that have ratified the Conventions. However, many of the principles and approaches related to the national policies and measures, their characteristics (such as that they should be preventive) and the desired results (for example, to provide incentives for certain technologies that are conducive to protection of environmental media or to reduction of greenhouse gas emissions).

Third: many of the principles and approaches will affect the country's economic and financial conditions for development if implemented. These are the principles and approaches for the use of market mechanisms, economically efficient measures and measures to encourage the use of accessible and affordable technologies, incentives for sustainable use of resources, complex approaches, integration of the objectives of the Conventions into the development programs and application of the ecosystem approach.

6.2 Requirements and Recommendations to the Political, Legislative and Economic Framework for Achievement of the Objectives of the Conventions at National Level

The common principles and approaches are completed by the requirements and recommendations to the legislative and economic framework for achievement of the goals of the Conventions. The three Conventions require from the countries to develop and implement specific programs, action plans and regulations.

The three Conventions identify and recommend a set of common economic and financial instruments for the countries to use in the fulfillment of their commitments. These tools, common for the three Conventions and frequently interrelated, are related to the country's economic framework. For example, it is recommended that taxes, fees and/or prices of resources or products should be used in meeting the goals of the Conventions. This recommendation is closely related to the recommendation to use the subsidies for the same purposes for which the preferential schemes and target and grant schemes have been introduced. However, there are certain differences in the use of these instruments for the different Conventions. For example, the UNFCCC context recommends removal of subsidies mainly in energy production based on traditional energy sources as a sector of high contribution of greenhouse gas emissions in many countries, but the UNCCD recommends the use of subsidies and preferences for development of sustainable agriculture.

The Conventions recommend also mechanisms for fair distribution of the benefits from the resources related to these Conventions. Such mechanisms are copyright rules, particularly where traditional knowledge and skills for the use of local resources or for limited or regulated access to the country's genetic resources is concerned. Such mechanisms for distribution of benefits and, particularly, the rules of protection of traditional knowledge and access to genetic resources are the subject of hot international debates involving not only member states but also NGOs and large international corporations. It is important for each party in these debates to learn and understand the positions defended by the participants, the consequences of the various solutions and interest of the respective national groups (such as national businesses or scientific community involved in genetic engineering or traditional medicine and/or production of herbal products and recipes).

Many of these tools can be used to achieve some common objectives of the three Conventions, particularly in view of the fact that in many cases they refer to common economic sectors and directions.

Common economic sectors and directions include agriculture (and livestock rising), forestry, and land use. Energy is not explicitly mentioned in two of the Conventions (UNCBD and UNCCD) but its development and contribution toward climate change are considered determining factors in processes such as draught. These processes, on the other hand, affect directly the implementation of the UNCCD and UNCBD.

The use of the tools recommended in the Conventions in the common sectors or in sectors that affect processes of importance for the three Conventions might be conducive to the simultaneous fulfillment of the objectives of two or of the three Conventions. Examples are encouraging agro forestry, organic farming, energy efficiency, forestation with suitable species and other methods for sustainable management of forests

6.3 International cooperation

International cooperation required for the implementation of commitments and for the three Conventions in general is represented by exchange of information, transfer of technologies and knowledge, financial support. Syria is one of the countries, which are eligible to financial assistance from the GEF and from bilateral agreements, and regional programs in which Syria can and does participate.

6.4 Systems for management/structures/functions recommended and/or required for the implementation of the Conventions

The systems for management of activities, structures or functions required by the country to implement the Conventions also have many points of contact although their specific requirements may be different in the context of each Convention. These include introduction of special regimes for economic activities, use of resources or operation of production units; monitoring of users or polluters; interagency coordination of implementation of the Conventions; early warning and reaction systems; interaction with the scientific community; public relations; selection and “packaging” of investment projects related to the implementation of the Conventions; and environmental impact assessment.

In addition, requirements exist for the setting up of institutional systems, structures or functions fulfilling the COP reporting requirements and implementation monitoring. Some of these functions can be coordinated or distributed among the specialized Convention units at the General Commission on Environmental Affairs. This coordination will reduce the load on these units and will increase their efficiency. For example, such functions are public relations systems.

6.5 Information and scientific products required/recommended for the implementation of the Conventions

The three Conventions require both monitoring of processes related to environmental media or the emissions/polluters and accounting for the fulfillment of the objectives. The states that are parties to the Conventions must collect information for the purposes of monitoring. Some monitoring processes and the required relevant data are also common for the three Conventions. These data are related to land use, forestry and agriculture, soils, vegetation, number of agricultural animals and their species, weather and demography characteristics, etc. Although the parameters of the data required by each Convention in these fields may differ in some respects, efforts can be joined. A unified data format and methods, integration of data and centralization of the access to them allow efficient use of the available resources.

The Conferences of the Parties (COP) recommend and, in some cases, require that these data and additional data specific to each Convention should be used to generate analysis products that are of a type also common for the three Conventions. These are indicators, forecasts and trends, inventories and evaluations for the implementation of policies and measures that lead to implementation of the objectives of the Conventions. The best opportunity to join efforts is in the development of monitoring indicators for processes related to the three Conventions. They, on the other hand, present information about the evaluation of fulfillment and making of decisions for better management of the processes related to the Conventions.

The data and analysis products are used both as support of national-level decisions and as means of reporting to the respective Conferences of the Parties. The reports under each Convention have their format, periodicity and other specific parameters. Part of the information included in a report to the COP for one Convention may serve in the preparation of reports under the two other Conventions.

6.6 Participants in implementation

The participants in the implementation of the three Conventions overlap in many cases although some public groups or management levels may have specific significance for each Convention. As in any international agreement, the direct responsibility for the implementation of the Conventions is borne by the governmental authorities, the Ministry of Local Administration and Environment (MALE) in this case, acting as a

coordinator for the Conventions. The Ministry of Agriculture and Agrarian Reform (MAAR) and the Ministry of Irrigation (MI), and other Ministries, play a key role by managing issues common to the three Conventions (land use, development programs). The Ministry of Finances (MF) affects the implementation of the Conventions mainly by establishing fiscal conditions for sustainable use of resources of significance for the three Conventions. Higher Commission for Planning (HCP) is essential in implementing projects suggested in the national action plans of the Conventions.

Involvement of local management authorities, private businesses, the scientific community and the public is recommended or required by all three Conventions. Two of them (UNCBD and UNCCD) require also regional organizations, and the media and NGOs are considered necessary assistants in achieving the objectives of all three Conventions. This shows that the member states recognize clearly the need for broad support and involvement in implementation activities and it shows the need for measures to be taken by the government authorities to secure such support and involvement.

6.7 General requirements

The Conventions have some general requirements and recommendations. These are:

- Dissemination of public information and involvement of the public in the decision making process and in the implementation;
- Development of national capacity for implementation of the Conventions, for reporting, for involving sector and other agencies external to the environment protection agencies, local management authorities, businesses, NGOs and the public.

Table 1: Points Common among the Three Conventions.

		UNCCD	UNCBD	UNFCCC
1. Principles and approaches recommended/required for the implementation of the Conventions				
1	Prevention/protection/conservation	X	X	X
2	Policies and measures consistent with sustainable development.	X	X	X
3	Equal responsibilities and differentiated obligations of the countries	X	X	X
4	Integration of the Convention objectives into development policies/programs	X	X	X
5	Ecosystem approach	X	X	X
6	Fair distribution of benefits and losses	X	X	
7	Sustainable use of natural resources	X	X	
8	Complex approaches	X	X	

2. Policy requirements				
2.1. Requirements for specific policies, strategies, programs and plans				
1	Long-term strategies, programs	X	X	X
2	Action Plans	X	X	X
3	Management plans (for regions, resources, and sectors, for the purpose of applying the Convention)	X	X	X
4	Legislation	X	X	
2.2. Requirements for the use of market mechanisms, efficiency measures and measures encouraging affordable and accessible technologies		X	X	X
3. International cooperation provisions				
1	Exchange of information and good practices	X	X	X
2	Transfer of technologies, know-how	X	X	X
3	Financial support	X	X	X
4	Regional programs	X	X	X
4. Requirements/ recommendations for specific management systems/structures/functions				
1	Support by science	X	X	X
2	Public education and information	X	X	X
3	Public participation	X	X	X
4	Training and capacity building	X	X	X
5	Inter-agency coordination	X	X	
6	Sectors/products/resources/production units subject to special regimes and control		X	X
7	Early warning and response		X	X
8	Trading		X	X
9	Selection of investment projects		X	X
10	Environmental impact assessments		X	X
5. Information and reporting requirements				
5.1. Monitoring and data collection				
1	Land use (by type)	X	X	X
2	Vegetation (by type)	X	X	X
3	Forests (by type, condition, density)	X	X	X
4	Forestry and logging	X	X	X
5	Soils (by type)	X	X	X
6	Agriculture (by type)	X	X	X
7	Climate (temperature, precipitation, etc.)	X	X	X
8	Surface hydrology /water resources	X	X	X
9	Demographic characteristics (population, human settlements, etc.)	X	X	X
10	Livestock census (by species)	X	X	X
11	Industrial activities	X		X
12	Fuels and energy consumption (by type)	X		X
13	Use of nitrous compounds, fertilizers and other agro-chemicals	X		X
14	Technical infrastructure (roads, power lines)	X	X	
15	Topography (heights, slopes, etc.)	X	X	
16	Wetlands		X	
17	Marine ecosystems		X	
18	Coastal areas		X	
19	Flora, fauna, mushrooms (species, density, populations)		X	
20	Endangered species habitats		X	

21	Protected areas (type, condition)		X	
22	Estimate of areas' risk of desertification	X		
5.2. Analytical products				
1	Indicators:	X	X	X
2	Trends and forecasts	X	X	X
3	Inventories and inventory lists	X	X	X
4	Costing/evaluation of benefits/damages/losses/emissions	X	X	X
5	Assessment of implementation	X	X	X
6	Maps	X	X	
7	Scenarios	X		X
8	Geographic information systems	X		
5.3. Requirements for quality and formats of reports to COPs				
1	Format set by the Secretariat	X	X	X
2	Periodicity		X	X
3	Margin of error			X
6. Participants in the implementation of the Convention.				
1	Government agencies	X	X	X
	Local authorities	X	X	X
2	Businesses, companies, trade organizations	X	X	X
3	The scientific community	X	X	X
4	Citizens/the public	X	X	X
5	Non-Governmental Organizations	X	X	X
6	Media	X	X	X
7	Regional authorities	X	X	

7 Integration of Capacity Development in the UN Environmental Conventions

Based on a comprehensive analysis of principles and concepts of capacity development contained in each Convention, and the analysis of state reports to the Conventions secretariat, the secretariat grouped the strengths and weaknesses facing implementation of the three Conventions as follows:

1. Lack of a high level of knowledge and awareness in the issues of the Conventions which diminished the opportunities for negotiation and discussions among states;
2. Lack of effective management of information which decreased potential of making the right decisions by the parties;
3. Lack of internal coordination which leads to dispersion of efforts of integration;
4. Lack of economic mechanisms for integrated implementation of the Conventions;
5. Outputs of sciences and technologies are under utilized in the process of decision-making;
6. Lack of financial, human and technical resources.

7.1 Technical Synergies between the Conventions

Many linkages exist between biodiversity protection, mitigation of climate change, and preventing desertification, therefore, the most appropriate response to the common issues among the three Conventions lies in developing plans and programs that encompasses the challenges of the three Conventions at the same time. This common response is needed because the scientific and technical linkages among the three Conventions are inter-related.

7.2 Areas on integration among Conventions

Themes and areas of integration between the three Conventions are grouped into three strategic approaches:

1. **Common strategic principles:** includes common concepts such as ecosystem management in an integrated approach, the importance of science and technologies, public participation, local communities...etc.

2. **Common procedural issues:** includes common executive matters such as filing reports to Conventions secretariat, institutional commitments, national planning requirements...etc.
3. **Common principles related to capacity development:** includes common requirements for capacity development in the three Conventions.

7.3 Importance of integration among Conventions

Integrating the implementation of the three Conventions may achieve benefits. The advantages of integration are:

1. The three Conventions have common requirements in many areas, and implementing the Conventions separately may lead to dispersion of efforts. For example, a common system can be developed to file common reports for the three Conventions.
2. There are scientific and environmental cross-cuttings between the three Conventions related to ecosystem management. Therefore, it is possible to develop programs and projects that contain resolving the common challenges for the three Conventions. For example, it is possible to make links between the clean development mechanism under the Convention on Climate and Conservation of Biodiversity and Desertification Control in the projects arising from this mechanism.
3. Available financial and technical resources can be utilized in a more effective way to develop project proposals and initiatives that deal with issues common between the three Conventions.

8 National Capacity Development Priorities for the Implementation of the Three Conventions

Based on the results of six Consultative Provincial Workshops, three Technical Working Groups, and the Analysis of Stakeholders' Activities the participants in the National Workshops that was held in Damascus on December 17, 2007 identified the priorities and constraints facing implementation of the activities related to the UN Conventions on Biodiversity, Desertification Control, and Climate Change.

The national priorities were studied and answers to the following questions were developed:

1. Are the suggested priorities in each Convention represent all national capacity development priorities? Are there additional priorities that are not mentioned?
2. Are there opportunities to combine some of the priorities?
3. What is the ranking (according to the following standards) of these priorities?
4. Based on the outcome of the above questions, a ranking is provided for the national capacity development priorities.

8.1 Standards for ranking capacity development priorities in Rio Conventions

The following standards were used to obtain the ranking of suggested national capacity development priorities:

- a. Importance in policies and legislations development;
- b. Importance in institutional capacity development;
- c. Importance in human capacity development;
- d. Importance in coordination between institutions;
- e. Importance in technology development;
- f. Importance in knowledge and information transfer development; and
- g. Importance in handling national environmental issues.

Each national capacity development priority was evaluated against the above standards and a number from **one** to **three** was given to each priority in terms of its relation to the standard.

Number 1 means low importance.

Number 2 means medium importance.

Number 3 means high importance.

8.2 Ranking of national capacity development priorities in the UN Convention on Biodiversity

Outcome of applying of the above-mentioned mechanism (article 8-1) is presented in Table 2.

Table 2. Assessment of National Capacity Development Priorities in the UN Convention on Biodiversity.

Priority	Importance in policies and legislations development	Importance in institutional capacity development	Importance in human capacity development	Importance in coordination between institutions	Importance in technology development	Importance in knowledge and information transfer development	Importance in handling national environmental issues	Total
1- Develop a strategic coordination mechanism among stakeholders working in Biodiversity	3	3	2	3	1	2	1	15
2- Develop a national knowledge management and data processing system for monitoring and reporting on Biodiversity	2	2	3	1	2	3	1	14
3- Strengthen the institutional and legislative framework for regulating	3	3	1	1	2	2	2	14

access to
genetic
resources and
benefits
sharing

4- Develop an
institutional
mechanism for
assessing the
impact of
regional and
international
agreements on
biodiversity

3

2

1

1

1

1

3

12

5- Develop
national
management
guidelines for
conservation
sites

2

1

2

1

1

1

3

11

6- Strengthen
capacity for
mobilizing
financial
resources
available for
biodiversity

1

3

3

1

2

3

2

15

7- Develop
national
directives for
biodiversity

2

2

1

1

2

2

3

13

Impact Assessment

8- Integrate the main concepts of the UN Convention on Biodiversity Conservation in the national development policies

2

2

2

2

1

2

1

12

9- Develop national capacity for *in-situ* conservation outside protected areas including capacity for community management

2

1

2

1

1

1

2

10

10- Empower local community management of biodiversity

1

1

2

1

1

1

1

8

11- Develop linkages

2

3

3

2

3

2

1

16

between
research and
policy making,
and develop
national
policies for
regional and
international
technology
transfer

**12- Develop
long- term
programs for
awareness and
education on
new concepts
in biodiversity
management**

1

3

3

1

1

1

1

11

**13- Develop
systems for
economic
incentives and
valuation of
biodiversity
components**

1

2

2

1

1

1

1

9

**14-
Development
of biodiversity
information
base**

2

2

2

1

1

2

1

11

Based on the assessment detailed in Table 2, the national capacity development priorities in the UN Convention on Biodiversity ranking was as follows. The total number of national priorities became 14 instead of 13 as it was suggested in the national workshop:

1- Develop linkages between research and policymaking, and develop national policies for regional and international technology transfer

There is a clear weakness in the links and relationships between scientific research on biodiversity issues (when available) and the policymaking and management systems. A capacity development program for creating an enabling system for linking scientific research to policy making is one of the major priorities in biodiversity management. Moreover, most efforts of technology transfer is not conducted within a framework of a national plan, but mostly through bilateral activities between national and regional or international institutions. Hence, there is need to develop capacity building for establishing an integrated and sustainable mechanism for technology transfer and adoption at the national level to insure conservation of biodiversity and food security.

2- Develop a strategic coordination mechanism among stakeholders working in Biodiversity

A National Committee for Biodiversity Conservation was established during the process of developing the National Biodiversity Strategy. However, the Committee has not been active ever since. There is a need to establish a practical, effective and sustainable coordination mechanism that brings together main institutions working in biodiversity for proper coordination. The General Commission for Environmental Affairs (GCAE) at the MLAE could be the secretariat and focal point of this coordination mechanism.

3- Strengthen capacity for mobilizing financial resources available for biodiversity

Most institutions lack the technical and practical knowledge for resource mobilization to implement biodiversity projects. One reason could be attributed that the National Strategy on Biodiversity has not been effective thus far mainly due to the absence of a practical resource mobilization plan and fund raising strategy. This is a major field for capacity development at institutional and individual levels.

4- Develop a national knowledge management and data processing system for monitoring and reporting on Biodiversity

Certain stakeholders are monitoring the status of biodiversity in Syria. However, such activities are conducted without a solid framework where

all stakeholders could contribute to and share information. Hence, there is a need for developing a viable monitoring system of the state of biodiversity where the role and responsibilities of stakeholders are well identified. This entails the necessity for developing national biodiversity indicators to be used in monitoring and reporting. Since biodiversity conservation efforts are divided between various sectors and institutions, a priority need will be to develop the national knowledge management capacity for biodiversity.

Information should be collected, saved, processed and exchanged among stakeholders through an effective knowledge management network. At the level of knowledge management for capacity development, new and practical training programs should be developed based on best practices in biodiversity conservation at the national or regional level of implementation. Such training programs will increase the practical capacity by proof and evidence of the success stories in biodiversity conservation and provide hands-on experiences to be applied in local conditions.

5- Strengthen the institutional and legislative framework for regulating access to genetic resources and benefits sharing

The institutional and legislative framework for regulating the issues of and access to genetic resources and benefits sharing could be adequately developed through a package of re-enforcing modern policies and legislations to ensure smooth access and balancing right to access and intellectual property rights. This issue needs also technical capacity development and institutional networking.

6- Develop national directives for biodiversity Impact Assessment

Detailed environmental impact assessment directives for Biodiversity have not been developed. A capacity development program and initiatives can be invested for developing the directives and a mechanism for application in order that all environmental impact assessment could be integrated and evaluated at solid scientific basis.

7- Develop an institutional mechanism for assessing the impact of regional and international agreements on biodiversity

Syria is moving towards integration with the international economic liberalization system at relatively reasonable rate, and has signed many trade and economic agreements including agricultural and industrial activities. Some agreements include articles and provisions that have direct and cumulative impacts on biodiversity. A capacity development program should be established to raise the awareness at the institutional,

individual and community levels for the linkages between trade, agriculture and other economic agreements and biodiversity issues.

8- Integrate the main concepts of the UN Convention on Biodiversity Conservation in the national development policies

The main concepts advocated by the UN Convention on Biodiversity Conservation and which constitute the main policy elements of biodiversity are not well reflected in current national development and sectoral policies (except in the National Strategy of Biodiversity which is partially implemented, and the Agricultural Development Strategy). Linkages between biodiversity and poverty eradication should be emphasized to ensure the credibility of integrating biodiversity into development policies. A major capacity development effort should be taken to increase the awareness and familiarity of major institutions with the new concepts of biodiversity management practices.

9- Develop national management guidelines for conservation sites

The number conservation sites reached 24 with a total area of 268426 hectares representing about 1.5% of the total area of Syria. However, there are no specific management guidelines for such areas. Public and civil institutions managing conservation sites need to develop its technical capacity in developing and implementing management plans that meet the various demands of conservation and sustainable use.

10- Develop long- term programs for awareness and education on new concepts in biodiversity management

Awareness and education programs have been included in biodiversity projects in many cases. However, such programs ended with ending the concerned projects. There is need to develop new concepts on biodiversity science and applications, especially benefits sharing, ecosystem approach and strategic biodiversity impact-assessments for various stakeholders to keep up with new technical developments and include such concepts in the education programs at all levels.

11- Development of biodiversity information base

Good and diverse expertise and researches in the field of biodiversity exist in Syria. These expertises are dispersed, and the research results are not available to those responsible for biodiversity work. Therefore, there is a need to develop a national biodiversity information base and link it with the national and international biodiversity networks. The information base should include detailed information on the available specialties in Syria in the different themes of biodiversity, and areas

where lack of expertise may exist so that graduate students work can be redirected to fill the gaps.

12- Develop national capacity for *in-situ* conservation outside protected areas including capacity of community management

In spite of the development a national network of protected areas, this network does not cover more than 1.5% of the area of Syria. However, biodiversity-rich habitats are being eroded and degraded outside the network of protected areas. Capacity development efforts should be established to furnish the environment for in-situ conservation of biodiversity-rich areas beyond the current and proposed protected areas system especially on important bird areas and national tourism parks and developing management plans for all kinds of protected areas.

13- Develop systems for economic incentives and valuation of biodiversity components

The absence of systems for economic incentives and valuation of biodiversity components is a major shortcoming in biodiversity and natural resources management.

Economic tools are to be developed and advocated in decision-making processes, with particular emphasis on providing economic incentives and economic valuation.

14- Empower local community management of biodiversity

Except for a few successful cases in community management of certain sites in protected areas and the Integrated Development of the Syrian Steppe, this experience is not available to manage elements of biodiversity at the community level. Hence, there is a great need to develop capacity for managing biodiversity rich areas, and integrate the concepts of conservation, sustainable use and benefit exchange with local rural development.

8.3 Ranking of national capacity development priorities in the UN Convention on Desertification Control

Outcome of applying of the above-mentioned mechanism (article 8-1) is presented in Table 3.

Table 3. Assessment of National Capacity Development Priorities in the UN Convention on Desertification Control.

Priority	Importance in policies and legislations development	Importance in institutional capacity development	Importance in human capacity development	Importance in coordination between institutions	Importance in technology development	Importance in knowledge and information transfer development	Importance in handling national environmental issues	Total
1- Develop a national land use policy	3	2	1	1	1	1	1	10
2- Consider desertification control a national development priority and allocate financial resources needed	1	3	3	1	3	3	1	16
3- Develop sustainable management for water resources	1	2	2	1	2	1	3	12
4- Develop guidelines for the rehabilitation of degraded land	1	1	2	1	1	1	3	10
5- Strengthen linkages between scientific research and policy making	3	3	2	1	1	1	3	13

6- Develop educational and training programs on sustainable land management and desertification control for all levels	1	3	3	1	3	2	2	15
7- Identify the role and responsibilities of stakeholders working on desertification control and develop a coordination mechanism among them	3	3	3	3	1	1	1	15
8- Develop a national indicators system to monitor desertification, drought and knowledge management	3	2	2	1	3	2	3	16
9- Strengthen capacity for outreach and networking with regional and global organizations and	2	2	2	2	2	2	1	13

programs

10- Empowerment of local communities to develop sustainable livelihood and document traditional knowledge in the fields of Desertification Control

2 2 2 1 1 2 1 **11**

11- Develop systems for economic valuation of the costs of land degradation

3 2 2 1 2 1 2 **13**

12- Develop an institutional mechanism to evaluate the impacts of regional and international economic and agriculture agreements on land management

3 2 1 1 1 1 1 **10**

13- Strengthen the concept of the "ecosystem approach" in

1 1 1 1 1 1 2 **8**

**national policies
and programs to
combat
desertification**

Based on the assessment detailed in Table 3, the national capacity development priorities in the UN Convention on combating desertification ranking were as follows. The total number of national priorities is 13 as it was suggested in the national workshop:

1- Develop a national indicators system to monitor desertification, drought and knowledge management

There is a pressing need to develop and implement a national program for monitoring desertification and drought strikes based on a sound system of indicators. This system should be linked to a national program for knowledge management on sustainable land management issues and should be accessible to all stakeholders.

2- Consider desertification control a national development priority and allocate financial resources needed

Land degradation and desertification are challenging problems and are occurring at an accelerated rate. However, they are not yet considered a major socio-economic and developmental challenge, nor have they enough financial and technical resources. It is necessary to consider integrating combating desertification within the socio economic development policies and plans and to allocate enough financial and technical resources.

3- Develop educational and training programs on sustainable land management and desertification control for all levels

Awareness, education and training programs have been introduced at all education levels in Syria. Moreover, the Environment Studies Center was established and specialized studies have been introduced to the curricula of universities. However, there is a general lack of sustainable and technically sound programs for various target groups associated with land management on sustainable land management priorities and combating desertification. Such concepts in land management should be integrated in curricula and taught in training programs that are based on hands-on examples and lessons learned in sustainable land management issues.

4- Identify the role and responsibilities of stakeholders working on desertification control and develop a coordination mechanism among them

Many stakeholders are conducting efforts of land management and combating desertification with minimal coordination among them. There is a pressing need to define specific roles and responsibilities of each

stakeholder and develop an institutional mechanism for coordination among them for efficient integration of available resources.

5- Strengthen capacity for outreach and networking with regional and global organizations and programs

The capacity of national organizations to coordinate and network with regional and global programs and organization should be enhanced through capacity development for networking and outreach and opening communication channels with regional and global stakeholders for sharing experiences and developing practical partnerships.

6- Develop systems for economic valuation of the costs of land degradation

The real economic loss associated with natural resources degradation due to land degradation processes lead to great economic losses, which need to be identified and valued. The development and application of systems for economic valuation of such losses would be very helpful for decision-makers and environmental advocates for integrating economic cost effectiveness models in natural resource management options.

7- Strengthen linkages between scientific research and policymaking

Scientific research on land degradation issues has been conducted but their results are not finding their route to the policymaking and management systems. A capacity development program for establishing a mechanism for linking scientific research to policy making is one of the major priorities in sustainable land management.

8- Develop sustainable management for water resources

Efforts for desertification control are highly related to the efforts of management of water resources and rationalizing of water use as scarcity of water resources is considered the main technical constraint causing land degradation. Technical and institutional capacity development is required at all levels to develop a new concept of water demand management aiming to protect the ecosystem and natural resources.

9- Empowerment of local communities to develop sustainable livelihood and document traditional knowledge in the fields of Desertification Control

Local communities are the ultimate beneficiary of sustainable land management programs and their empowerment through training, institutional and technical capacity development and financial resources

development is a key factor for the success of any desertification control programs. This should be associated with documenting and implementing traditional knowledge for sustainable land management.

10- Develop a national land use policy

Desertification and land degradation problems can be attributed mainly to the absence of an effective national policy or guidelines for land use planning. Syria needs to invest in capacity development efforts at both policies and individual levels for the main objective of developing an effective land use policy that will protect the fertile land from desertification and urbanization, and assign sustainable use patterns for various types of land.

11- Develop guidelines for the rehabilitation of degraded land

Effective guidelines for rehabilitation of degraded lands are practically not present to follow up land degradation caused by developmental activities, and there is a scarcity of best practices and success examples in land rehabilitation. Capacity development is required for developing practical guidelines for land rehabilitation.

12- Develop an institutional mechanism to evaluate the impacts of regional and international economic and agriculture agreements on land management

Many trade and economic agreements are being signed in Syria within the framework of integration into the global economic system. Some agreements include articles and provisions that have a direct and cumulative impact on sustainable land management. A capacity development program should be established to study the impacts of such agreements and land degradation, natural resources and food security.

13- Strengthen the concept of the "ecosystem approach" in national policies and programs to combat desertification

In spite of the development in mechanisms of desertification control in Syria, most activities do not apply in a way or another the "Ecosystem approach" which has proved to be the most holistic approach in management of natural resources at the global levels. As it entails management of all components of the complex ecosystems (environmental, social and economic), it is the most practical entry point for sustainable land management. This concept should be advocated to all stakeholders and decision-makers through all potential capacity development tools and programs.

8.4 Ranking of national capacity development priorities in the UN Convention Climate Change

Outcome of applying of the above-mentioned mechanism (article 8-1) is presented in Table 4.

Table 4. Assessment of National Capacity Development Priorities in the UN Framework Convention on Climate change.

Priority	Importance in policies and legislations development	Importance in institutional capacity development	Importance in human capacity development	Importance in coordination between institutions	Importance in technology development	Importance in knowledge and information transfer development	Importance in handling national environmental issues	Total
1- Strengthen institutional and technical capacity development for the Climate Change Focal Point	2	2	2	1	1	1	1	10
2- Develop Capacity building for implementing GHG mitigation measures, and their effect on climate	2	2	1	1	2	2	2	12
3- Capacity development and application of	2	3	2	1	1	1	2	12

national adaptation plans, and providing economic incentives in the fields of mitigation and adaptation procedures

4- Develop linkages between policy making and research, and national policies of technology transfer at the regional and international levels

2

3

2

1

2

2

1

13

5- Integrate the UNFCCC main concepts in the national policy formulation process

1

2

1

2

2

2

1

11

6- Develop capacity for rational and efficient uses of energy

1

2

1

1

3

3

1

12

7- Develop practical education and training programs

2

2

3

1

2

2

1

13

8- Capacity development for knowledge management and networking	2	3	3	3	2	2	1	16
9- Develop quality national communication reports, and capacity development for national GHG inventory	1	3	2	2	1	3	2	14
10- Create environment for utilization of renewable energy and encouraging this direction	3	3	2	1	2	2	1	14
11- Capacity development and utilization of available resources in climate change activities	3	3	3	1	2	2	1	15

Based on the assessment detailed in Table 4, the national capacity development priorities in the **UN Framework Convention on Climate change** ranking was as follows. Three priorities were united; therefore, the total number of national priorities is 11 instead of 14 as it was suggested in the national workshop:

1- Capacity development for knowledge management and networking

There is a clear need at the national level to develop a knowledge management and networking system that would facilitate the acquisition, processing and dissemination of technical knowledge on climate change issues across organizations and between various professionals in the field.

2- Capacity development for resource mobilization

Technical and practical knowledge of stakeholders for resource mobilization to implement climate change projects needs to be developed in Syria. Particular focus should be given to GEF resource mobilization options in the area of climate change. This is a major field for capacity development at institutional and individual levels.

3- Develop quality national communication reports, and Capacity development for national GHG inventory

Syria is processing the first communication Report on climate change, and would submit it in mid 2008. Determining the full implications of the greenhouse gas emissions of an energy system using IPCC bottom-up methodology requires examination of every phase of the whole energy chain, from the supply side of the energy system (i.e., resources extraction, refineries, electric power plants) to the demand side (i.e., industrial plants, residential and commercial units).

Quality communication reports require determining local/regional emission factors, taking into account all variables such as technology employed, efficiency and type of fuel as well as developing and conducting capacity-building efforts for using the modern energy balance software systems.

Survey of GHG emissions needs national efforts for capacity development in GHG inventory, which should include capacity to enforce and sustain GHG inventory process, technical capacity to undertake GHG inventory in the 6 related emissions and sink sources, capacity to collect and compile relevant data and capacity to enter and maintain GHG data in an electronic database.

4- Create environment for utilization of renewable energy and encouraging this direction

Development in energy policies and the feasibility of alternative energies is growing at slow pace in Syria. However, recent economic developments should put more emphasis on developing renewable energy resources (such as wind and solar) in the national energy mix. Capacity development in the field of systemic and institutional aspects of renewable energy is considered one of the main priorities.

5- Develop linkages between policymaking and research, and national policies of technology transfer at the regional and international levels

The linkages between policy makers and research results are weak. Most efforts conducted in national scientific research centers and regional and international bodies in Syria on energy and climate change issues do not find their route to the policymaking and management systems for a reason or another. A capacity development program for creating an enabling system for linking scientific research to policy making is one of the major priorities in energy management and climate change. The research capacity-building component should be focused on systemic observations and collecting, managing and utilizing activity data and emission factors as well as capacity to establish a sustainable Observation System on Climate Change.

Moreover, fulfillment of obligations under the UNFCCC, financial and technological support is necessary to insure technology transfer such as building institutional capacity, establishing/strengthening research centers and funding demonstration projects that mitigate climate changes. Other capacity requirements include capacity to identify, adapt and disseminate relevant climate change safe technologies and capacity to coordinate the various technology transfer initiatives and to report on the achievements.

6- Develop practical education and training programs

Implementation of the UNFCCC requires development of practical education and training programs, which are major cross-cutting for successful environmental program for capacity building. The main entry point for education and awareness could be the adaptation measures and plans for different sectors and assimilating and processing new practical knowledge resources on climate change adaptation and mitigation measures and clean development mechanism especially project design and requirements. Other entry points for education, awareness and training could be based on identifying socio-economic impacts of climate change in addition to major environmental impacts. Education and training program for climate change should be based on the national

priorities identified and main capacity constraints and should be looked at as a tool and not an end by itself.

7- Develop Capacity building for implementing GHG Mitigation measures

Mitigation measures are key components of to the climate change challenges. The required capacities relate to technical capacity to undertake Green House Gases (GHG) mitigation (energy, industrial processes, agriculture, forestry, and wastes), technical capacity to identify GHG mitigation options in the various areas and to elaborate mitigation plans, capacity to use forecasting models in the different sectors and capacity to undertake cost assessments.

8- Develop capacity for rational and efficient uses of energy

To minimize GHG emissions, changes in economic development and energy policies, and fulfilling the requirements of the UNFCCC need to be addressed through a strong program of capacity building, and to emphasize more on developing renewable energy options. The national focus on energy efficiency will be a positive driving force in many sectors including energy, agriculture, industry, housing and transport, and a practical capacity development program should be associated with this transition. This approach needs development of technologies and practices for energy efficiency at all levels of energy consumption.

9- Capacity development and application of national adaptation plans, and providing economic incentives in the fields of mitigation and adaptation procedures

One of the main priorities should be to build national capacity for developing adaptation plans and measures for the impact of climate change on major sectors (water, agriculture, energy, transportation, municipalities, etc.). This is consistent with the great emphasis given to adaptation measures in all developing countries. Required capacity in this field relates to technical capacity to undertake vulnerability assessments (agriculture, forestry, water resources, health, housing, etc.), technical capacity to identify adaptation options in the various areas and to elaborate adaptation plans, and technical skills to use climate models, to use scenarios and to interpret results.

There is need for capacity development at systemic and institutional levels for establishing and operating economic tools and incentives for various stakeholders in climate change dimensions.

10- Integrate the UNFCCC main concepts in the national policy formulation process

In spite of the fact that climate change has great impacts on the environmental, development, economic, tourism and health sectors, the concepts of climate change and UNFCCC are not well integrated in the national policy and planning system. The concepts of climate change and mitigation and adaptation measures are needed to be integrated into the national policies, legislations and indicators in all related sectors.

11- Strengthen institutional and technical capacity development for the Climate Change Focal Point

One of the main missions of the national Focal Point of the UN Framework Convention on Climate Change at the General Commission for Environmental Affairs (GCEA), the Ministry of Local Administration and Environment is coordinating national activities in the field of climate change and is in need for more capacity development investments in all aspects of climate change. This will ensure high quality management and coordination performance of the climate change unit parallel to the ongoing technical and institutional capacity building process GCEA. Specific issues in capacity development include energy evaluation and emission factors, adaptation and mitigation programs and CDM mechanisms.

The Clean Development Mechanism (CDM) is characterized by its fields of application and global technical details. CDM requires understanding the institutional and legal framework, technical infrastructure, enforcement capacity, and human resources needed to implement the mechanism. Major efforts in capacity development should be focused on this particular issue.

8.5

8.6 Cross-cutting priorities in the three UN Conventions

Participant of the national workshop that was held in Damascus on December 17, 2007 have agreed on **ten** national capacity development priorities. Outcome of applying of the above-mentioned mechanism (article 8-1) is presented in Table 5.

Table 5. Assessment of National Capacity Development Priorities for Integrating the three UN Conventions on Biodiversity, Desertification Control, and Climate Change...

Priority	Importance in policies and legislations development	Importance in institutional capacity development	Importance in human capacity development	Importance in coordination between institutions	Importance in technology development	Importance in knowledge and information transfer development	Importance in handling national environmental issues	Total
١- Develop sustainable institutional coordination mechanisms	3	3	3	3	3	3	3	21
٢- Knowledge management and networking	2	3	3	3	3	3	2	19
3- Develop outreach, awareness and education programs on synergies among Conventions	2	2	3	2	1	2	2	14

4- Develop means for technology transfer	1	2	3	1	3	2	1	13
5- Develop Clear and systematic integration of the cross-cutting concepts in the national policy and legislation	3	3	3	3	3	3	2	20
6- Develop education and research	2	2	3	2	3	2	2	16
7- Capacity development for financial mobilization and building partnerships	3	3	3	2	3	2	1	17
8- Training and rehabilitation	2	3	3	1	2	3	1	15
9- Local communities empowerment and participation	2	2	2	2	2	2	2	14
10- Development of infrastructure facilities	3	3	3	2	2	2	1	16

Based on the assessment detailed in Table 5, the **ten** national capacity development priorities in integrating the UN Convention on Biodiversity, Desertification Control, and Climate Change ranking was as follows. It should be stressed that ranking of the priorities may differ from one project to another according to the outcome expected from the project. In addition, ranking may change over time.

١- Develop Sustainable institutional coordination mechanisms

The Ministry of Local Administration and Environment (the General Commission for Environmental Affairs) is the focal point for all the three UN Conventions on Biodiversity, Combating Desertification and Climate Change. However, the implementation of obligations depends upon the active involvement and commitment of other stakeholders especially line governmental institutions and NGOs. This requires a dynamic and sustainable coordination mechanism among the various institutions, and to present the synergy perspective to all stakeholders. This will help in developing integrated responses to the commitments and inter linkages among the Conventions.

2- Develop clear and systematic integration of the cross-cutting concepts in the national policy and legislation

The main cross-cutting concepts advocated by the Rio Conventions and which constitute the main policy elements of biodiversity, desertification and climate change are not well reflected in current national development and sectoral policies in a clear and integrated manner. Linkages between the Conventions and poverty eradication should be emphasized to ensure the credibility of integrating the themes into development policies in Syria.

3- Knowledge management and networking

Knowledge is a major tool in the management of environment. Since efforts in implementing the three Rio Conventions are divided among various sectors and institutions, a priority need will be to develop the national knowledge management capacity for synergies between the three themes. Information should be collected, saved, processed and exchanged between institutions and professionals through effective knowledge management networks whether these networks already exist or should be developed. The knowledge management system could act as a tool for unified monitoring for environmental components and reporting requirements of the three Conventions.

4- Capacity development for financial mobilization and building partnerships

Technical and practical knowledge for financial and technical resource mobilization to implement projects and programs tackling synergies between the three themes is of great importance to develop technical cooperation between Syria and international and regional organizations and institutions. This is a major field for capacity development at institutional and individual levels of MLAE/GCEA since financial constraints represent some of the major difficulties facing environmental management in Syria. Integrated resource mobilization can also help in minimizing overlaps and maximizing the benefits from international aid.

5- Develop education and research

The existing educational system in environmental sciences and natural sciences in general does not adequately address scientific and practical linkages between the themes of biodiversity, desertification and climate change, and between these themes and the natural environment.

Education on global environment issues can promote the development of an increased awareness and understanding of the impact of local actions that degrade the environment sustainable development and human well-being and will assist in developing educational packages that address the three themes and their cross-cutting issues in an integrated manner.

Concepts related to the synergies between the Conventions should be integrated in educational programs and curricula to ensure a sustainable flow of education packages and an integrated approach to education for environmental management and linkages between the three themes.

Another important capacity development priority is creating an enabling system for linking scientific research to policy making. Scientific research should focus on cumulative and synergistic impact assessments of the linkages between biodiversity losses; desertification and climate change and produce informed decisions on integrated responses and mitigation plans.

6- Development of infrastructure facilities

Implementation of the Rio Conventions requires efficient infrastructure at the levels of research and development. This will include developing new capacities in existing facilities such as laboratories, data centers, libraries, museums, herbariums, field stations, and monitoring sites. These could be shared between two or more institutions implementing activities under the Conventions to make use of existing synergies and for cost effectiveness.

7- Training and rehabilitation

Environmental and technical training packages should be developed by and for national institutions to focus on linkages and synergies among the Conventions. Programs must be developed to utilize existing national and regional specialized centers to provide courses in technical areas relevant to all three Conventions to targeted audiences. Another training tool could be course materials for technical professionals and agency staff on issues relevant to the three Conventions and the synergies, complementarities, and areas of overlap that exist to be used in structured courses, workshops, and seminars. Such training programs will increase the practical capacity by proof and evidence of the success stories in synergies and provide hands-on experiences to be applied in local conditions.

8- Local communities' empowerment and participation

One of the most important challenges in implementing the Rio Conventions is the development of the capacities of the communities who are the end beneficiaries of any environmental management program. Local communities' capacities to address issues of biodiversity, desertification and climate change should be developed in a sound technical way keeping close attention to the linkages with sustainable livelihoods. This can be accomplished through capacity development for local institutions to enable them develop their own initiatives to implement global environmental thinking in the local context.

9- Develop outreach, awareness and education programs on synergies among Conventions

Although many awareness and outreach programs have been implemented on sectoral basis, there is still a need to advocate the integrated synergies between the three Conventions for various stakeholders to keep up with new technical developments. Any awareness and outreach program should be considered as tools for capacity development and not an end by itself.

10- Develop means for technology transfer

The Rio Conventions emphasize the importance of technology co-operation and transfer in achieving their respective goals. Mutually-supportive technologies like renewable energy, agriculture efficiency and ecosystem preservation will be of high value to address the common elements and synergies from a technological perspective.

9 Challenges/Constrains of the Implementation of UN Environmental Conventions

Fulfillment of the commitments under the three Conventions requires solutions, measures, structures, knowledge and skills specific to each Convention and common to all of them. Technical Support Group formulated during its meeting in Palmyra (28/4/2007) the national capacity building priorities that are common between the Conventions. The analysis of these priorities allows for the identification of common challenges/constrains in national capacity development for implementation of the three UN Conventions on: Biodiversity, Combating Desertification, and Climate Change.

The capacity issues are grouped in a way that allows identification of the groups of problems and objectives common for the three Conventions.

9.1 Themes of challenges/constrains that are common in the capacity development issues for implementation of UN Environmental Conventions

Theme 1: Political, economic and legislative framework: constrains in the first theme can be identified through providing answers to the following questions, which may serve as indicators for capacity development in Syria:

- ◆ Are there political support, economic conditions and primary and secondary legislation conducive to the fulfillment of the requirements under the Convention?
- ◆ Is the legislation implemented?

Theme 2: Resources: constrains in the second theme can be identified through providing answers to the following questions, which may serve as indicators for capacity development in Syria:

- ◆ Are the necessary organization structures, human, financial, and information resources available?
- ◆ Do these resources meet the requirements, are they managed well, and do they serve the fulfillment of the Conventions and their sustainable development principles adequately?

Theme 3: Public support: constrains in the third theme can be identified through providing answers to the following questions, which may serve as indicators for capacity development in Syria:

- ◆ Is the public aware?
- ◆ Does the public support and participate in activities for implementation of the Conventions?

Theme 4: Coordination: constrains in the forth theme can be identified through providing answers to the following questions, which may serve as indicators for capacity development in Syria:

- ◆ Is there any inter-relation between institutions/organizations, processes?
- ◆ Do they work together for efficient implementation of the Conventions?

These are the four groups of capacity development issues where constrains can be found and activities for resolving these constrains in the three Convention at the same time can be designed and executed.

9.2 Nature and Causes of Challenges/constrains For National Capacity Development for the Implementation of UN Environmental Conventions

9.2.1 The specific activities for each Convention are incomplete and indecisive

One of the causes for this problem is the **incomplete legislative framework** under each Convention, and not implementing the existing legislations. While a national strategy has been developed and adopted for the UNCBD, UNCCD, and UNFCCC and an almost complete range of legislation required for its implementation exists, Syria has not prepared the first National communication required by the UNFCCC.

The existing strategies, plans and regulations specific to one Convention do not consider the interests or possibilities to aid in the implementation of the other two Conventions. Some regulations related to the fulfillment of Conventions do not offer sufficiently clear procedures and do not leave broad possibilities for subjectivism on the part of law enforcers.

The **insufficient number of experts** in specialized structures managing the work under the Conventions or involved in structures fulfilling tasks under specific Conventions at the MALE (especially for UNFCCC), and the lack of teams and coordination among them is also one of the causes of this problems.

The possibilities for **joined objectives** or financing of activities that are common for the three Conventions are ignored. The MALE require additional human resources and knowledge on a number of issues such as economic evaluation, use of economic and financial tools etc., allowing these units to exact, evaluate and use information and analysis on such subjects.

The **insufficient central budget allocations** for activities specific to each Convention, such as drawing up of reports and other information, involvement of more representatives in the Conferences of the Parties (COP) etc., impedes the timely fulfillment of the commitments and the maximum use of the favorable opportunities for Syria. For example, the discussions on issues under the UNFCCC that are instrumental not only in the fulfillment of the commitments under the Kyoto Protocol, but also for the participation in flexible mechanisms and for the right to assistance by the GEF, are held frequently in separate groups and there is a need for a team to participate in such negotiations and to defend Syria's interests.

One obstacle is also the fact that the possibilities to **set up budgets** providing for objectives common to all three Conventions are not utilized. Such objectives may be economic evaluation, coordination with other agencies, preparation and management of projects of common interest and other similar activities.

9.2.2 The Economic Activities Implemented by the Different Sectors Do not Follow the Common Principles, Approaches, Policies and Measures required for the Implementation of the Conventions

Neither of the Conventions can be implemented without **measures that are integrated into economic activities**, sectors and directions, many of which are common to the three Conventions. Such common economic activities, sectors and directions are forestry and agriculture, energy production, land use etc. A number of reasons such as existing and/or lacking practices, mechanisms and tools, insufficient organization and human capacity explain the fact that these sectors and directions that are common to the Conventions do not contribute to their implementation, with certain small exceptions.

The MALE is making insufficient efforts to **integrate the principles and approaches** recommended by the Conventions into the development plans at all levels and into all related legislation. With small exceptions, there are no incentives and favorable conditions for economic activities

conducive to the implementation of the Conventions. The existing funds do not pursue objectives that are common for the Conventions. The available funds do not support sustainable agriculture with sufficient effectiveness.

The staff and management methods used by the authorities are not consistent with the needs for increased control of the use of natural resources related to the Conventions. For example, the insufficient transparency allows for a degree of subjectivism in decision-making, and the insufficient knowledge of the requirements of the Conventions has caused underestimating of the problems caused by violations. In addition, the staff entrusted with drafting of legislative framework, development plans, sector strategies and programs is insufficiently trained. Moreover, no efficient mechanisms exist for horizontal coordination between various agencies, interested institutions and social partners, which obstructs the integration in their activities of measures to achieve the objectives of the three Conventions.

9.2.3 The Information Required for Decision Making and Carrying out of Activities under the Conventions and Reporting to the Conferences of the Parties is Insufficient, and Incomplete

There are many causes of this problem, and these causes are common to the three Conventions. One of these causes is related to the **underdeveloped of environmental process indicators** and to the inefficient policies and measures for implementation of the Conventions. The partial or incomplete analyses of environmental media change trends, of the efficiency of measures, of the interrelations with economic development are insufficient for competent decision-making.

Some of the data gathered from monitoring systems are inadequate or of low quality which obstructs the fulfillment of the COP reporting commitments. The efforts to ensure data are resource intensive, managed by different agencies and collected using various methods. The possibilities to define the common parameters and to integrate data and information common to all three Conventions are underused in areas such as land use, vegetation, soils, forestry and logging, agriculture, weather, hydrology and demographics, topography, energy and fuel. When preparing the COP reports, the units use data from various authorized sources, and the data are not always consistent with the parameters set by the COP. Integrating the different data, introducing compatible methods and setting of parameters and formats to support the evaluation of the objectives of the Conventions will improve the quality and will make the work of the specialized units more efficient and less resource intensive.

On the other hand, the scientific community is not ready to offer adequate modern methods and analyses required in some cases for decision making to implement the Conventions or to monitor and assess related processes. The main cause for this is the lack of a well functioning mechanism for exchange of information required for scientific research. In most cases, obtaining of information is very expensive and almost impossible but the involvement of the scientific community in activities related to the Conventions is encouraged.

Awareness plays a great role in forming public opinion and hence affects the politics and decision-making. In Syria, climate change still plays a humble role compared with other environmental issues despite that the recent increase in temperature and drought periods have aroused the concern of the public. The recent climate events have helped in improving the public awareness of the climate change phenomenon affecting the daily lives of people. However, public awareness of consequences on climate change and possible adaptations to these changes is very low. Public awareness with regard to the objectives of the UN Conventions on Desertification Control, and Biodiversity is low. Public is not aware of dangers that may result from desertification, or benefits of biodiversity, or the dangers facing biodiversity.

9.2.4 The Local Authorities, the Economic Subjects, the Non-Governmental Organizations and the Public are not sufficiently aware and involved in the Implementation of the Conventions

The main cause for the poor involvement of the local authorities in activities directly related or conducive to the implementation of the Conventions is the **lack of, or insufficient, information about the Conventions**, about the possible activities to fulfill the obligations under the Conventions and about existing sources for financing of such activities.

The insufficient contribution by the business community in achieving the goals of the Conventions is due to **poor awareness of this community** and of the branch organizations about existing and doable profitable activities and technologies. In addition, the financial sector does not implement policies and practices encouraging the development of such activities and technologies.

NGO involvement has been limited for several reasons. First, non-governmental organizations (NGOs) are in their infancy stages. Second, the current legislation has certain weaknesses related to the optimum involvement of NGOs in the processes related to fulfilling the commitments under the Conventions. Third, there are limited sources of financing.

There are three main causes for insufficient public involvement:

- ◆ The institutions involved in fulfilling the requirements of the Conventions are insufficiently active in involving the media to promote the issues of the three Conventions;
- ◆ Limited possibilities for involvement in decision-making; and
- ◆ Inefficient education conducive to building of behavior that contributes to environmental protection.

9.3 Categorization of constraints facing national capacity development for implementation of the UN Environmental Conventions

Taking into consideration capacity development levels and indicators for capacity development at these levels, the constraints (as identified above) facing capacity development can be grouped as follows:

9.3.1 Institutional constraints

Constraints related to incomplete and indecisive implementation of activities

- ◆ Separation of strategies, work plans, and legislations under each Convention.
- ◆ Lack of national experts at the institutions managing Conventions tasks.
- ◆ Absence of common objectives for the three Conventions.
- ◆ Lack of financing for activities specific to each Convention. This constraint is institutional in terms of fund management in a way that serves priorities for implementation of requirements.
- ◆ Lack of the potential for appropriating budgets to achieve common objectives of the Conventions.
- ◆ Translation of activities that should be implemented at the same time is not sufficient.
- ◆ Absence of procedures for natural resources management in a sustainable way in Syria.

Constrains related to the lack of use of common principles, approaches, policies and measures required for the implementation of the Conventions

- ◆ Lack of integration of principles and approaches in the development plans.

9.3.2 Systematic constrains

Constrains related to incomplete and indecisive implementation of activities

- ◆ Incomplete legislation framework and existing legislations are not implement for the purpose they were meant for.
- ◆ Insufficiency of human resources.
- ◆ Lack of financing which is a systematic constrain in terms of insufficiency of available funds.

Constrains related to the lack of use of common principles, approaches, policies and measures required for the implementation of the Conventions

- ◆ Economic activities that are common between the Conventions are not implemented.

Constrains related to insufficiency of information available for decision-making and implementation of activities....

- ◆ Environmental indicators are not developed, and media is not effective.
- ◆ Weakness in mechanisms of information transfer required for scientific research.

Constrains related to lack of awareness and involvement of local authorities, economic subjects, and non-governmental organizations in the implementation of Conventions

- ◆ Lack of information about the Conventions.
- ◆ Lack of available information to economic subjects regarding the Conventions.
- ◆ Newness of the non-governmental organizations.
- ◆ Weaknesses in legislations governing the work of non-governmental organizations in the field of Conventions implementation.
- ◆ Lack of funds available to non-governmental organizations.

9.3.3 Individuals constrains

Constrains related to insufficiency of information available for decision-making and implementation of activities....

- ◆ Monitoring information is not enough and of low quality.
- ◆ Low public awareness level in environmental Conventions and the issues they deal with.

10 Paths Toward Removing Barriers to Capacity Development Constrains

A strategy considering and building upon the common points to remove barriers to capacity development has several advantages:

- ◆ It allows for a more efficient use of limited institutional, human and financial resources through joined efforts and actions;
- ◆ It offers ways to integrate the necessary measures for implementation of the Conventions into the country's common political, regulatory and economic framework;
- ◆ It prevents the possibility for any decisions and measures under one Convention doing harm to another Convention.

For these reasons, the strategy detailed hereinafter is based on three principles:

- ◆ Joined efforts on one Convention with those on the two other Conventions based on their points of contact;
- ◆ The measures for implementation of the Conventions are integrated into Syria's regulatory and economic;
- ◆ Measures and activities under one Convention are developed and applied while searching for and/or avoiding damages under the two other Conventions.

Analysis of the interrelations between the specific goals and objectives under each Convention in the context of capacity items, opportunities and weaknesses in integrated management of data in areas common to the three Conventions and common or interrelated objectives has led to the development of a set of four strategic objectives to develop capacities for the three Conventions.

10.1 Strategic objective 1: Increased Efficiency of the Work toward Fulfilling the Commitments under the Three Conventions.

The agency responsible for the fulfillment of the commitments under the three Conventions is the General Commission for Environmental Affairs (GCEA). One common requirement of the three Conventions is the preparation and application of program documents specific to the respective Conventions. This requires three functional specialized units to

coordinate their implementation and to interact with the COP. Coordination units are in GCEA, and they do not have sufficient numbers of adequately skilled personnel and, are comparatively small. Better results and higher efficiency of their work and use of limited **human** and **financial resources** would require better coordination between them, joining of certain tasks that are common to the three Conventions and utilizing the possibilities to achieve results under the three Conventions through work on one Convention. The following specific objectives and goals must be fulfilled for the purpose:

10.1.1 Specific objective 1.1. Setting Clear Procedures to Support the Implementation of Activities under the Conventions

10.1.1.1 Improve the coordination and team work for the fulfillment of the commitments under the three Conventions to elaborate specific programs and/or plans for each one

The following activities can be carried out to achieve this goal:

- ◆ New and updated strategies and/or plans under one Convention consider the interests and possibilities of the three Conventions in Syria.
- ◆ Coordinators and specialists working on one Convention should participate in the elaboration of programs and/or plans under the other Conventions.
- ◆ Apply principles and approaches that are common to the three Conventions.
- ◆ Priority is given to fulfilling commitments under one Convention while this implementation contributes to the implementation of the other two Conventions and/or avoiding activities that may hinder their implementation.

10.1.1.2 Develop and update legislations so that:

- ◆ They provide for better coordination between the Conventions;
- ◆ They require or encourage teamwork;
- ◆ They secure the use of financial resources generated under one Convention to achieve the objectives of three Conventions;
- ◆ They reflect the ecosystem management approaches.

10.1.1.3 More efficient utilization of current and future funds to contribute for the implementation of the objectives of the three Conventions

The can be realized through:

The information about the financing project selection procedures and criteria should be easily accessible and understandable for all interested users. This can be done through web pages and distribution of printed materials to all stakeholders.

10.1.2 Specific objective 1.2. Improving the Efficiency of the institutions fulfilling the commitments of the Conventions

10.1.2.1 Improve the coordination between the officials in the different institutions at the central and local levels for the implementation of activities under each Convention

Required activities:

- ◆ Holding of regular meetings between the Coordinators of the three Conventions. These meetings would contribute toward finding of opportunities to join objectives and responsibilities and their efficient distribution between the coordinators and their supporting officials. This activity conforms to the recommendations by the Conferences of the Parties to the Conventions to improve the work between the coordinators of the three Conventions under the guidance of the GEF coordinator;
- ◆ Setting up of auxiliary teams on issues common to the three Conventions;
- ◆ Holding of meetings and using information technologies to improve the coordination between the coordinators of the three Conventions and their colleagues that will work on related issues.

10.1.2.2 Increase the knowledge and skills of officials at the central and local levels involved in the fulfillment of commitments under the Conventions, on issues of:

- ◆ Planning processes with stakeholder involvement;
- ◆ Economic costing of natural resources and ecosystem functions;
- ◆ Methods, tools and specific activities for application of the common principles and approaches recommended by the

Conventions in specific programs, development plans and sector programs;

- ◆ Economic and financial mechanisms to involve economic subjects and citizens in activities supporting the objectives of the Conventions.

Required activities:

- A. Include environmental and Convention related training in the job descriptions of the officials in specialized units.
- B. Develop courses/modules for training by GCEA or other bodies in the field of activity 1.

Improve the mechanism of work groups' work on specific issues of the Conventions.

Required activities:

- ◆ The decisions should be made publicly accessible on-line and, upon request, on paper;
- ◆ An archive of decisions should be maintained to allow tracing of the development of policies on certain issues;
- ◆ The involvement of the scientific community in their work should be secured.

10.2 Strategic objective 2: The Executive Authorities Work Using the Common Principles, Approaches, Policies and Measures, Recommended by the Conventions

The achievement of the objectives of the Conventions is related to changes of the long-term trends and economy development conditions. Therefore, their implementation requires integration into the economic activities and development plans. Such integration involves redirection of capitals toward activities conducive to environment protection and leading to changes in behavior of economic subjects. This strategic objective requires implementation of the following specific objectives and goals:

10.2.1 Specific objective 2.1. All agencies working on implementing the Conventions carry out Activities Aimed at Achieving the Objectives of the Conventions

10.2.1.1 Applying the common principles, approaches, policies and measures, recommended by the Conventions into the national, regional and local development strategies and programs

10.2.1.2 Improving the efficiency of measures in support of Agro ecology and sustainable use of forests

Required activities:

- 1) Elaborate a national organic farming development plan by establishing a coalition of stakeholders;
- 2) Provide support for various agro-ecological activities using means secured by program budgeting;
- 3) Provide incentives for consumption of biological products using market mechanisms, certification of products and land, and large-scale information campaigns;
- 4) Sustainable management for all Syrian forests, and adoption of certification for forest products in order to arrive at a better understanding of natural processes and sustainable development for forest ecosystems;
- 5) Elaborate framework development plans and schemes for multifunction management of forests according to the purpose of the forest (prevention, production, tourism...). The process of their preparation is to secure involvement of all stakeholders;
- 6) Prepare land use map;
- 7) Update the national erosion control programs.

10.2.1.3 Authorities involved in the energy sector (Ministry of Electricity and Ministry of Oil) should encourage and support increasing the efficiency of energy use, and the development of renewable and environmentally friendly energy sources of energy

Required activities:

- ◆ Preparation of investment projects for energy efficiency and renewable energy sources and submitting these projects to local and foreign investors to solicit funding.
- ◆ Secure preferential conditions for their development in an updated strategy for the development of the sector.

10.2.1.4 The Ministry of Local Administration and Environment (MLAE), the Ministry of Agriculture and Agrarian Reform (MAAR), and the Commission for Higher Planning (CHP) should create partnerships with suitable organizations for the implementation of pilot projects to apply the ecosystem approach to ecosystems' functions and/or components that are common to the three Conventions. Such projects will demonstrate opportunities to achieve the objectives of the three Conventions and will develop the capacity to apply the ecosystem approach.

10.2.1.5 Education aids the building of behavior conducive to environmental conservation

Required activities:

- 1) Ministry of Education and Ministry of Higher Education should make decisions to enhance the opportunities for environmental education in the system of education.
- 2) Ministry of Education and Ministry of Higher Education should support the building of Environmental Education and Sustainable Development Centers and should contribute to the environmental and sustainable development education networks.
- 3) The Ministry of Higher Education should, in cooperation and coordination with other interested institutions and organizations, provide specialized training programs for teachers and trainers on environmental issues, including global issues that are the subjects of the three Conventions.
- 4) The Ministry of Higher Education should provide constant encouragement for the establishing of modern teaching aids that integrate knowledge on environmental issues including those covered by the three Conventions. This may be achieved by

formulating the needs for such aids and dissemination of information about them through the structures of the Ministry.

- 5) The Ministry of Higher Education should, in cooperation and coordination with other interested institutions and organizations, develop and operate a system for information exchange on tools and programs on environmental education. This system should be impeded in the education system.
- 6) The MLAE should, in cooperation and coordination with the Ministry of Education and the Ministry of Higher Education, constantly prepare plans to implement awareness campaigns for environmental protection, and should encourage extensive participation by the students and pupils in specific activities.

10.2.1.6 The appropriate authorities should provide information about existing affordable and accessible activities and technologies contributing for the achieving of the objectives of the Conventions.

10.2.1.7 The Ministry of Labor and Social Affairs can contribute to the fulfillment of the objectives of the Conventions through the following activity:

- ◆ Prepare and carry out training courses for those registered at the labor offices on some subjects common to the three Conventions (preferably in subjects related to common economic issues like agro forestry, organic farming...). The trainees shall receive a certification of the training they obtained, and such certificate should be a prerequisite for participation in some job contests. Such training may help in building skills that may assist in starting small projects that are environmentally directed or related to conservation of ecosystem function.

10.2.2 Specific objective 2.2. The officials increase their knowledge and skills for integration of the objectives of the Conventions into their activities.

10.2.2.1 Increase the knowledge and skills of the officials of the Ministry of Finance, Ministry of Agriculture and Agrarian Reform, Ministry of Electricity, Ministry of Higher Education, and the State Planning Commission on the following subjects:

- ◆ Principles, approaches, policies and measures for sustainable management of resources in sectors and directions common to the Conventions;
- ◆ Economic costing of natural resources and ecosystem functions;
- ◆ Applying of the ecosystem management approach;
- ◆ Economic and financial tools and approaches to implement the common principles of the Conventions.

Required activities:

- A. Develop courses/modules for training by the Commission for Higher Planning in coordination with GCEA for those working in the field of the Conventions.
- B. Include a requirement for Convention related training in the job descriptions of the officials involved in programming processes.

10.2.2.2 The control authorities (Customs Offices, and quarantine Offices) should be strengthened by provision of knowledge about the three Conventions and skills to control and implement the legislation related to them.

10.2.2.3 The court authorities should be strengthened by provision of knowledge about the three Conventions and skills to implement the legislation related to them.

10.2.3 Specific objective 2.3. The improved interagency coordination leads to successful integration of the objectives of the three Conventions into the sector program documents

10.2.3.1 The practice of involving experts and coordinators for the Conventions in sector seminars and meetings, and of sector experts in seminars and meetings related to the Conventions should be introduced.

10.2.4 Specific objective 2.4. Secured financing to fulfill the commitments under the Conventions

10.2.4.1 Secure program for financing from the state budget for national and international activities under the Conventions.

10.2.4.2 A suitable system for financing of the sustainable management of forests should be created.

10.2.4.3 The MAAR should secure compensatory mechanisms for the forest beneficiaries in the events where their benefits are limited.

10.3 Strategic objective 3: The Activities and Decisions for Implementation of the Conventions are based on Adequate Information and Data

The data and the information from their processing and analysis are required for the observation of environmental changes. They are also the basis of efficiency assessments for the actions that have impacts on the environmental and on the processes related to Conventions. The selection, adaptation and/or planning of future actions require adequate data and information. Monitoring indicators for environmental processes and trends that affect these processes can be used.

10.3.1 Specific objective 3.1. An Integrated System for Gathering, Processing, Analyzing and Evaluating Data is in Place and the Results are presented through Indicators

10.3.1.1 A system of sustainable development indicators that involve evaluation of processes related to the Conventions and

efficiency of policies, measures and activities for their implementation should start as soon as possible. The indicators should:

- ◆ Demonstrate the interdependencies between the condition of ecosystems, environmental media and the economic and social development;
- ◆ Serve the development of new program documents and the making of specific decisions, as well as better public awareness;
- ◆ Conform to the formats for accounting of the countries to the COP concerning the Conventions;
- ◆ Conform to the UN sustainable development indicators;
- ◆ Be compatible with the monitoring systems and indicators (being) established for the three Conventions at national and international levels.

Required activities:

- 1) Review, select and adapt existing systems of indicators available from the World Bank, UNDP, the Institute of Global Resources, Great Britain, Canada, etc.);
- 2) Adopt a set of indicators for Syria in consultancy with stakeholders;
- 3) Collect and process the necessary data about the selected indicators.

10.3.1.2 Unify the methods and formats for the data for the selected indicators and for the needs of reporting to the Conferences of the Parties to each Convention.

Required activities:

- 1) Carry out complete inventorying of the existing data and of the available information regarding the quality and compatibility of the formats of data collected by various institutions and required for each of the Conventions;
- 2) Assess the adequacy and quality of data collected by various institutions/organizations for the needs of the Conventions;
- 3) Review and unify the data collection methods;
- 4) Build the organization structure required for integration of data and its linking to the system of indicators.

10.3.2 Specific objective 3.2. Scientific Analyses, Products and Information Support the Development, Application and Assessment of the Impacts of Policies and Measures to Implement the Conventions

10.3.2.1 Establish a national scientific program for environmental management under the Higher Commission for Scientific Research. The program should provide incentives for scientific research in the following fields:

- ◆ Economic costing of ecosystems and their components;
- ◆ Identification of ecosystems of significance for Syria related to the Conventions and to their functions of economic, social and cultural significance, and elaboration of methods and approaches for economic expression and preservation of these functions;
- ◆ Good practices to implement and protect ecosystem functions;
- ◆ Unified methods for assessment of policies and measures;
- ◆ Good practices for sustainable agriculture, forest resource management and land use.

10.3.2.2 Analyze the contribution of strategies, programs and plans for the implementation of the Conventions.

Required activities:

- 1) Provide an obligation for inclusion in all program documents of criteria for assessment of the achievement of objectives and of their contribution to the Conventions;
- 2) Develop criteria for evaluation of the contribution of strategies, programs and plans for the implementation of the Conventions.

10.3.2.3 Use program budgets for the Syrian scientific institutions to build multidisciplinary research groups for the following purposes:

- ◆ Assessment of economic costing of ecosystems and their functions;
- ◆ Analysis of ecosystems change trends and the factors causing them;
- ◆ Analysis of the interrelations between the environment (more particularly, its elements controlled by the

Conventions) and economic development in the context of the ecosystems.

10.4 Strategic objective 4: The Local Authorities, Economic Subjects, Non-Governmental Organizations and the Public Support the Implementation of the Conventions

The Ministry of Local Administration and Environment (represented by GCEA) has comparatively limited abilities to carry out the activities required for the implementation of the Convention. At the same time, other groups and sectors of society can have a significant role in the implementation of the objectives of the Conventions. The above strategic objective requires the following objectives and goals to be implemented:

10.4.1 Specific objective 4.1. Support of the local authorities to carry out activities to implement the Conventions

10.4.1.1 Train representatives of local authorities in the following fields:

- ◆ Problems and objectives of the three Conventions;
- ◆ Implementation of the principles of sustainable development;
- ◆ Ecosystem Approach;
- ◆ Economic and financial tools and approaches for application of the common principles of the Conventions in the conditions of fiscal decentralization;
- ◆ Approaches to adapt to climate change and draught.

10.4.1.2 Facilitate the access to information about the Conventions and the practices for achieving of their objectives, through inclusion of all regional structures involved in implementation of the three Conventions.

10.4.2 Specific objective 4.2. The economic subjects are involved in the implementation of the Conventions

10.4.2.1 Identify suitable environmental activities and functions that economic subjects can implement. The functions common to the three Conventions that can be implemented by the economic subjects are:

- ◆ Elaboration of indicators, assessments and analyses;
- ◆ Implementation of pilot projects using the ecosystem approach;
- ◆ Carrying out of information campaigns;
- ◆ Education.

Required activities:

- 1) Elaborate lists of activities and commissioning functions;
- 2) Estimate the costs of activities and functions;
- 3) Provide budgets;
- 4) Build systems for provision of transparency, monitoring of implementation and submission of information.

10.4.2.2 Provide incentives for introduction of quality control systems.

Required activities:

- a) Introduce the environmental management standards, and finding the appropriate funding for this purpose;
- b) Alleviated access to loans with softer conditions for activities related to the implementation of the three Conventions. Particularly important are forestry, agriculture and energy sectors. This can be achieved by co-financing from the state budget and through others approaches.

10.4.2.3 Create a permanent mechanism for provision of information to businesses and sector organizations about possible profitable activities related to the implementation of the Conventions.

10.4.3 Specific objective 4.3. The Non-Governmental Organizations (NGO) are involved in the Implementation of the Conventions

10.4.3.1 Identify activities and functions related to the three Conventions and that NGOs can implement.

The functions that are common to the three Conventions, which can be implemented by NGOs include:

- ◆ Construction and maintenance of information exchange mechanisms;
- ◆ Elaboration of indicators, assessments and analyses;
- ◆ Management of specific areas or resources (such as protected areas as in Lebanon and Jordan);
- ◆ Public participation in the decision making process of the government;
- ◆ Training;
- ◆ Carrying out of information activities and campaigns;
- ◆ Education.

10.4.3.2 Improve the financial and economic conditions for implementation of the Conventions by NGOs.

10.4.3.3 Encouraging NGOs' involvement in the fulfillment of the commitments under the three Conventions

Required activities:

- ◆ Include NGOs representatives in working groups and advisory councils;
- ◆ Commission those representatives for certain activities related to the commitments under the Conventions;
- ◆ Secure financing for NGO-initiatives in support of the Conventions.

10.4.4 Specific objective 4.4. The Public is Informed and Involved in the Implementation of the Conventions

10.4.4.1 Create and ensure the functioning of mechanisms for exchange of information related to the Conventions.

The mechanisms should provide information about:

- ◆ Good practices for sustainable management of forests;
- ◆ Organic farming;
- ◆ Good agricultural practices;
- ◆ Agro-ecology practices
- ◆ Possibilities to fund activities conducive to achieving the objectives of the Conventions;
- ◆ Energy efficiency technologies, including those for households.

10.4.4.2 The authorities responsible for implementation of Conventions should, in corporation with Ministry of Information, carry out national campaigns to promote the significance of the issues of the three Conventions, and the causes and the ways to overcome the problems.

Such campaigns can involve seminars, meetings, forums, publications ...etc.

10.4.4.3 Actively involve the media to provide information to the public on the issues of the Conventions and their relation to the individual behavior of people and economic activities.

Required activities:

- A. Presentation of information to the media should be a permanent activity of the agencies concerned with the Conventions.
- B. Training of journalists in the issues related to the three Conventions.
- C. Establish a system at the Damascus University for training of journalists.

10.4.4.4 Increase the role of parliamentary economic committee on issues related to the Conventions.

Required activities:

- A. Securing of public access to the decisions from their meetings;
- B. Increased parliamentary control on the implementation of programs and use of funds, which can and should finance activities conducive to the implementation of the Conventions.

10.4.5 Specific objective 4-5: Taking traditional knowledge and Obtaining Public Support for National Strategies and Plans

10.4.5.1 Raise stakeholder awareness about existing regulatory possibilities for involvement in management decision making concerning the implementation of the Conventions.

10.4.5.2 Improve and make operational and more efficient the public involvement mechanisms.

These mechanisms can be activated through the following activities:

- A. Elaborate and apply procedures for provision of information and consulting of the public in the development and implementation of national and local program documents and solutions related to the implementation of the Conventions. This includes identification of specific public groups which should be consulted in any decision and any consultancy with each group;
- B. Build procedures for submission to the public of information and consultancy for the selection and acceptance of evaluations of the implementation of adopted programs and of the implementation of policies and measures for the application of the Conventions.

11 Analysis of Environmental Protection Law Number 50 of 2002 in Relation to National Capacity Development to Accomplish Integration among UN Environmental Conventions

Law number 50 of 2002 includes texts in a number of articles and items that can form legislative framework for the implementation of the requirements of the international environmental Conventions in each Convention and in the three Conventions together. The law does not have clear texts that deal directly with the Conventions (Biodiversity, Desertification Control, and Climate Change), and does not include clear texts about the Conventions.

The following is an analysis of the environmental protection law:

Article 1. Article 1 includes definition of environmental protection as follows: *procedures and systems that ensure the continuity of environmental balance and integration of development, and maintain integrity of environment that is suitable for enjoyment of life and use of resources and properties in the best way*. According to this definition, the law guarantees the implementation of measures that ensure the continuity of environmental balance and integration of development. This comes in harmony with the integration spirit in the three Conventions. In other words, this text can be used as a base for the integration of the Conventions. This article is in harmony with the principles and approaches required for the implementation of the three Conventions, particularly the ecosystem approach, which is considered one of the main principles of the Conventions.

Article 4. Article 4 includes the tasks entrusted to the General Commission for Environmental Affairs (GCEA). GCEA carry out, in coordination and corporation with appropriate authorities, the tasks set forth in the law. The most important aspects for integration between the Conventions are:

- 1- Delineation of existing environmental problems, and participation in researches and studies required for correction of these problems.
- 2- Formulating general policy for environmental protection, and preparing national strategies, programs and plans for

its (policy) implementation with the general policy of Syria.

- 3- Development of environmental awareness in various ways to raise awareness in importance of biodiversity conservation, and integrity of environment and its resources.
- 4- Measurements of environmental components.
- 5- Preparation of standards and specifications for environmental measurements.
- 6- Carrying out researches and studies related to environmental issues.
- 7- Monitoring of activities that may affect the environment.
- 8- Setting conditions and basis for natural reserves and national parks.
- 9- Working toward development and functioning of environmental monitoring network.
- 10- Development and organization of environmental information bank.
- 11- Publication of materials related to the environment.
- 12- Development of legislations, regulations, and studies that ensure the maintenance of environment and its components.
- 13- Studying the causes in soil erosion and desertification, and suggesting the suitable solutions.

Reviewing the above listed tasks reveals that the Law No. 50 of 2002 includes: a legislative framework for a number of issues that can be carried out under the three Conventions; scientific researches in the different fields of environment; protection of all components of the environment; developing environmental awareness, measurements of environmental components; development of specifications and standards for environmental components; development of bases for environmental impact assessment; developments of bases and conditions of natural reserves and national parks; development of environmental monitoring network; development and organization of environmental information bank; and development of legislations and regulations and studies that ensure the maintenance of environment and its components.

A number of these fields are principles and requirements that are common under the three Conventions. These fields are:

- ◆ **Scientific research;**
- ◆ **Raising environmental awareness;**

- ◆ **Development of bases for environmental impacts;**
- ◆ **Development of environmental monitoring impact.**
- ◆ **Development of legislations, regulations, and studies that ensure the maintenance of environment and its components.**

Article 5. Article five of the Law states that the General Commission for Environmental Affairs works on fostering the relations between the Syrian Arab Republic and the international and regional commissions and organizations in the affairs and agreements related to conservation of the environment. In other words, this article forms a legislative framework for the UN Conventions on environment, and for relations with international and regional commissions and organizations in all environmental affairs.

Article 15. Article 15 is designed for development of the Board for Environmental Protection, which was replaced, later by the Board of Environmental Protection and Sustainable Development (BEPSP), which is headed by the Prime Minister. The board includes 17 ministers as members, thus, encompassing all official institutions involved in implementation of the three Conventions. Article 15 of the Law includes the authorities of the BEPSP. The main authorities of BEPSP are:

- 1- Approval of the general policy for environmental protection, and national strategies, plans, and programs to fulfill this policy in the general policy of the country.
- 2- Approval of specifications and standards for measurements of pollution and environmental components.
- 3- Approval of systems and conditions for industrial establishments and any other activities that may influence the environment.
- 4- Taking decisions regarding prevention, cessation, or setting restrictions on operations of any establishment or activity that has the potential of harming the environment.
- 5- Taking decisions about any matters that the Minister of Local Administration and Environment may present to the board.

The subjects of strategies, plans, and programs related to environment and integration of them into the general policy of Syria fulfill the requirement for preparation of strategies, work plans, and programs that are common under the three Conventions. Integration of strategies, plans, and programs into the general policy of the country fulfills the requirement for

sustainable development of natural resources, which is a common principle under the three Conventions.

The authorities granted to the BEPSD cover many activities required under the three Conventions.

Article 19. Article 19 of the Law notice financing: 1) all projects in the fields of natural resources and environmental protection against pollution; 2) technology transfer for the purposes of environmental protection for which a clear text exists in the three Conventions; 3) establishment of the natural reserve; 4) studies needed for the preparation of environmental programs and environmental impact assessment; 5) establishment of environmental monitoring networks; and 6) any activities targeting protection of the environment.

The issue of technology transfer falls under the theme on international cooperation under the three Conventions. Environmental impact assessment and establishment of environmental monitoring networks are also common requirements for the three Conventions.

By noticing financing preparation of environmental programs, article no. 19 indirectly provides a legislative framework for the development of National Program for Sustainable development of Environment (will be discussed later).

Article 22. This article states that the GCEA shall, in coordination, corporation, and contribution of appropriate authorities, take necessary measures to ensure conservation and protection of the environment against pollution (air, soil and marine pollutions). This article serves implementation of some articles of the Convention, especially the UN Framework for Climate Change.

Article 27. Item one of article no. 27 states that: "*owners of factories, establishments, and activities that release emissions that pollute the environment shall install devices that prevent spread of these pollutants...*" However, this article is not meant for climate change, but it might be used for this purpose.

There are a number of common issues between the three Conventions, which are not noticed by the law No. 50 for the year of 2002. The main areas are:

- ◆ Public education and information;
- ◆ Public participation;
- ◆ Training and capacity development;
- ◆ Monitoring and information gathering regarding land use; soils; agriculture; climate; demographic characteristics; domestic animals statistics; indicators, trends and environmental predictions; and filing reports to the conferences of the parties.

The law can be developed and updated to include those issues that are common under the three Conventions.

12 Recommendations

12.1 Fostering the institutional outlook

Several core activities are particularly amenable to the issue of institutional synergies. These activities are:

- ◆ Awareness raising;
- ◆ Education;
- ◆ Reporting;
- ◆ Data gathering and inventories;
- ◆ Public participation;
- ◆ Scientific research;
- ◆ Training and rehabilitation.

12.2 Development of a National Program for Sustainable Management of the Environment

In order to achieve the institutional integration in the field of the three Conventions it is beneficial to develop a National Program for Sustainable Management of the Environment (NPSME) within the General Commission for environmental Affairs (Appendix 1). The program shall include a national committee for coordination between the three Conventions. Members of the committee are representatives of all stakeholders groups.

The NPSME shall be responsible for all environmental activities related to implementation of the three Conventions in Syria. Working under the umbrella of the Board of Environmental Protection and Sustainable Development (BEPDS), the NPSME shall be responsible for formulation of environmental policies, preparation of environmental plans, and designing of activities related to sustainable development of environment for all sectors.

The legislative framework for such program can be found under the Law no. 50 of 2002, particularly Item No. 15 of Article No. 4, and Article No. 19 of the same Law.

12.3 Fostering the role of the General Commission for Environmental Affairs

The political leadership in the country gave great attention to the environment and environmental issues. Therefore, it is necessary to foster the role of the General Commission for Environmental Affairs in

line with the objectives of the sustainable development, especially the commitments toward the three Conventions at, local, regional and international levels.

12.4 Capacity Development at all levels (individual, institutional, and systematic)

Capacity development and strengthening capacities already existing are urgently needed. Activities related to commitments under the Conventions are numerous, complex, inter-related, and laborious; therefore, its necessary to work on improving national capacities al all levels. The general capacity needs to address synergistic activities are:

- ◆ Low levels of awareness and knowledge limit the ability for discussion, decision-making and action.
- ◆ Lack of information management, monitoring and observations hampers policy and decision-making.
- ◆ Lack of synchronization of national policy, legal and regulatory frameworks leads to confusion between sectors and between national, regional and local levels.
- ◆ Incentive systems are inadequately developed.
- ◆ Institutional mandates either overlap or have gaps, key institutions are not involved, and interactions between institutions are not always effective.
- ◆ Science and technology are ineffectively mobilized in support of policy and decision-making.
- ◆ Preparing for, skill in participating in, and reporting back on, international negotiations and agreements is weak.
- ◆ Coordination, and processes for interaction within the country are poorly developed.
- ◆ Cooperation and networking within regions is often lacking.
- ◆ Individuals tend to be ineffectively deployed, mobilized, motivated or given responsibilities.
- ◆ Institutional effectiveness is hampered by weak management and resource constraints.
- ◆ Lack of financial resources and technology.

12.5 Requirements of activities that are common under the three Conventions

The general capacity needs to address synergistic activities are the capacities to:

- ◆ Inventories, monitoring and systematic observations;
- ◆ Planning, policy development and reform of legal frameworks;
- ◆ Impact assessment;
- ◆ Activation of scientific research;
- ◆ Improving exchange of information, knowledge and data management;
- ◆ Reporting and monitoring;
- ◆ Education, training and public awareness.

Capacity development in these areas can be grouped into three categories:

- A- Human resources;
- B- Infrastructure development;
- C- Coordination and cooperation.

12.6 Adjustment of planning processes at the national level

Synergies in the three Conventions can be fostered through plans aiming at meeting the following conditions:

- A. Plans should be consistent with goals of national development;
- B. Plans should identify the roles of the Conventions and other commitments at national, regional and global levels;
- C. Plans should identify areas where overlaps and conflicts can occur and suggest means of turning them into opportunities of synergies.

Given these conditions, there are three possibilities to national planning processes:

First Possibility: Develop separate plans for each agreement. This is the one possibility that receives both financial and political support, which is neither effective nor suppressive of synergies.

Second Possibility: Develop a new umbrella plan incorporating elements of all agreements. This is a good choice provided the institutional mechanism for planning and implementation are in place.

Third Possibility: Develop a mechanism to integrate planning associated with the instruments into existing national plans and planning frameworks. This is the best option in current situation but outlook and capacities to do so are weak unless the recommendation regarding development of a National Program for Sustainable Development for Environment is adopted.

12.7 Development of information base

Strong information systems, efficient networks and intelligent synthesis of these into knowledge equip Syria to regularly assess status, progress and plan for sustainable development. Implementation of the three agreements needs a good information base. Creation of this base with an implicit design for planning and monitoring is thus needed.

Though information is a source of power, on its own it can achieve little. Integrated planning to use the information, data and analysis for reporting and monitoring synergies at action level is the key to success. The following example shows how certain activities under one Convention may affect and be affected by activities implemented in other Conventions.

ISSUE	UNCCD	CBD	UNFCCC
1- Disaster planning framework: early warning systems, emergency measures to respond to floods, droughts, etc.	Help ensure protection of vulnerable communities (e.g., creating food and water reserves, cattle protection schemes).	Identification of fragile ecosystems and species prior to a crisis, to maximize protection during and following a disaster.	Determine priority measures to minimize loss of life and damage to livelihoods as a result of extreme weather events.
2- Integrated watershed management: agroforestry (firewood, fodder, annual crops), run-off harvesting for trees.	No over-exploitation of local water hence low salinization risk; run-off harvesting, terraces and trees conserve soil.	Conserves much of the watershed's biological diversity, utilizes parts of it thus contributing to overall sustainability.	Increases water retention and hence its availability in times of drought. Slows water movement, reducing the risk of flash floods. Maintains vegetation as carbon sink and

			reservoir.
3- Intensive greenhouse agriculture and aquaculture (cash crops, fish, industrial materials from algae).	High income per unit soil and water used, thus economizing on land and water resources.	Reduced pressure on land leaves habitats for <i>in-situ</i> biodiversity conservation, thus promoting its utilization.	Reduced pressure on land (a) allows conservation of biodiversity resistant to climate change; (b) Maintains carbon sink and reservoir.
4- <i>In-situ</i> conservation of biological resources, wildlife conservation.	Potential for economic exploitation as an alternative livelihood; promotion of ecotourism.	Global benefits from dryland biodiversity assets.	Conservation of genetic diversity instrumental in restoring climate change damaged ecosystems.

12.8 Development of Law No. 50 of 2002 to reflect integration of the three Conventions

There are a number of common issues between the three Conventions that are not noticed by the law No. 50 for the year of 2002. The main areas are:

- ◆ Public education and information;
- ◆ Public participation;
- ◆ Training and capacity development;
- ◆ Monitoring and information gathering regarding land use; soils; agriculture; climate; demographic characteristics; domestic animals statistics; indicators, trends and environmental predictions; and filing reports to the conferences of the parties.

The law can be developed and updated to include the issues that are common under the three Conventions.

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14 Appendix 1. Suggested Framework for National Institutional Capacity Development for the Implementation of International Environmental Conventions in Syria

