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**PROJECT "BULGARIAN NATIONAL CAPACITY SELF-ASSESSMENT FOR GLOBAL  
ENVIRONMENTAL MANAGEMENT"**

# **THEMATIC ASSESSMENT REPORT**

## **COMBATING DESERTIFICATION AND LAND DEGRADATION**

### **SUMMARY**

2004

The Bulgarian National Capacity Self-Assessment for Global Environmental Management Project is a joint initiative of the Ministry of Environment and Water and the United Nations Development Programme (UNDP) funded by the Global Environment Facility (GEF) and started in December 2002. Its aims are to define capacity building needs in view of meeting Bulgaria's obligations under the United Nations Conventions on Climate Change, Biological Diversity and Combating Desertification and develop a Strategic Action Plan, to be adopted as an official document

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<sup>1</sup> In the full text of the Report, Appendix 4 – list of members of the thematic group on combating desertification

## LIST OF USED ABBREVIATIONS

ASR	Agency of Soil Resources
BAS	Bulgarian Academy of Sciences
CB	Convention of Biodiversity
CM	Council of Ministers
CHM	Clearing House Mechanism
EUSIS	European Soil Information System
EU	European Union
EAE	Executive Agency of Environment
EAEAP	Executive Agency of Economic Analysis and Prognoses
EMAEP	Establishment for Management the Activities of Environmental Protection
GAP	General Agriculture Policy
GEF	Global Environmental Facility
GM	Global Mechanism on UNCCD
GIS	Geographic Information Systems
ISO	International Standard Organization
LC	Low for the Concessions
LEP	Low for the Environmental Protection
LPC	Limited Permissible Concentration
LAAP	Low for Assistance to Agricultural Producers
LOM	Low for the Ores and Minerals
LCI	Low for the Cooperation of Irrigation
MFA	Ministry of Foreign Affairs
MEER	Ministry of Energetic and Energy Resources
MAF	Ministry of Agriculture and Forests
ME	Ministry of Economy
MES	Ministry of Education and Science
MOEW	Ministry of Environment and Water
MF	Ministry of Finance
MRDPW	Ministry of Regional Development and Public Works
NASEM	National Automatic System for Ecological Monitoring
NIMH	National Institute of Meteorology and Hydrology
NAP	National Action Programme
NGO	Non-governmental Organization
NBF	National Board of Forests
NCAS	National Center of Agrarian Science
PA	Public Assembly
RIEW	Regional Inspection of Environment and Waters
SAPARD	Structural Adjustment Program of Agriculture and Rural Development
SEC	System of Ecological Monitoring
UNEP	United Nations Environmental Programme
UNCCD	United Nations Convention to Combat Desertification
UNPD	United Nations Development Programme
UNFCC	United Nations Framework Convention on Climate Change
VIE	Valuation of the Impact on Environment

## **Introduction**

This thematic assessment report is the result of the second phase of the Bulgarian national capacity self-assessment to participate in the management of the human impact on the global environment. This process is implemented through the joint project of the Ministry of Environment and Water (MOEW) and the UN Development Programme (UNDP), financed by the Global Environment Facility.

The objective of the thematic report on combating desertification is to present capacity constraints in fulfilling Bulgaria's obligations under the UN Convention to Combat Desertification and to specify the objectives and tasks for realization in order to overcome these problems. This report notes the assets of possible direct or indirect benefit in implementing the identified objectives.

The major principle of the National Self-Assessment is wide and profound participation of all stakeholders in the analysis of the capacity to fulfill Bulgaria's obligations under the Convention. This report is product of the Thematic Working Group to combat desertification and includes representatives of the executive authority (16 persons), local authority (1 person), science community (2 persons) and non-governmental organizations (2 persons). Three meetings of the team were held to adopt the present document. Its work is based on the information, compiled and summarized at the first stage of the project<sup>2</sup>, and was supported by a group of experts, who carried out detailed studies and developed proposals to be discussed during the meetings. Draft thematic report is discussed with a wide group of stakeholders at a workshop organized in Sofia on February 18, 2004. Proposals for changes in the report are discussed among the Thematic Working Group members and text revisions are made resulting into the final version of the Thematic Assessment Report on Combating Desertification.

The methodology of the present Thematic Assessment Report preparation includes several steps and analytic methods.

### **1. Selection of priority themes for analysis of the national capacity to fulfill Bulgaria's obligations under the UN Convention to Combat Desertification**

The information analysis of the present state enables series of achievements and difficulties related to the fulfillment of Bulgaria's obligations under the Convention to be determined. The diversity of activities needed to implement the obligations under the UNCCD and the guidelines for carrying out the process of national self-assessment required focusing the attention on a limited number of themes for the further review of the capacity. The themes for capacity analysis were determined by an expert team that elaborated the Baseline Report, with participation of the National Focal Point on the Convention and the leaders of the expert teams on the other two thematic areas (climate changes and biological diversity), on the basis of the following criteria: scale of the problem, level of concern, priority level and capacity building needs in four aspects – human resources, administrative resources, financial resources, technical resources.

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<sup>2</sup> Baseline Report on Combating Desertification (<http://chm.moew.government.bg/nlsa>)

The final set of themes, proposed for further capacity analysis to combat desertification includes the following:

1. Establishment and/or strengthening of systems for monitoring and evaluation of the desertification and drought; Early warning systems and capacity for readiness against the drought and elimination of consequences, including contingency plans to combat drought;
2. Economic valuation of the land degradation damages;
3. Exchange of scientific information;
4. Effective management of natural resources and use of alternative energy sources;
5. General national policy to combat desertification and its integration in the sector policies;
6. Informing the society – dissemination of knowledge and ensuring public support;

## **2. SWOT analysis**

The national capacity self-assessment project team selected the SWOT method (strengths and weaknesses, opportunities and threats) for the analysis of Bulgaria's capacity to fulfill its UNCCD commitments. The main reason for this choice is that the identification of weaknesses identifies the problems/gaps in the capacity required to fulfill the commitments while the identification of strengths could help identify existing or potential capacity that could be used or developed further. On the other hand, both opportunities and threats are factors of the external environment and could help/encourage or obstruct/hinder this development.

Two meetings of the thematic working group<sup>3</sup> were held and the preparation of SWOT analysis was organized.

The first meeting identified the strengths, the weaknesses, the opportunities and the threats to capacity at the systematic, institutional and individual levels for each of the above six priority themes. Each of the analyzed levels comprises the following elements:

- systematic level – political framework; legislative framework; economic framework; system level resources; public support; coordination;
- institutional level – structure; human resources financial resources; information resources; technical resources;
- individual level – personnel skills, personnel motivation for work; personnel motivation for training; personnel interrelations/cooperation;

After that the project grouped the respective entries for the six themes by element for each capacity level. The result was discussed at the second meeting<sup>4</sup> of the thematic working group where the SWOT analysis records were further clarified, unified, added or removed.

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<sup>3</sup> First meeting, Lesidren, 24-25 July 2003

Second meeting, Vladaja, 11-12 September 2003

<sup>4</sup> Held in Vladaia, 8-10 September 2003

### **3. Identification of priority problem areas of the capacity to fulfill the Convention commitments**

The further elaboration on the SWOT analysis results indicated the occurrence of cause-effect interrelations between the weaknesses identified. At the second workshop the thematic group members clustered the respective statements as a result of which seven capacity problem areas were identified. These problem areas were prioritized on the basis of four criteria, defined by the working group: importance, urgency, interactions with other conventions, and ability to solve with available resources, as follows:

1. Lack of general policy to combat desertification;
2. Insufficient legislative instruments to implement the UNCCD obligations;
3. Poor management in science regarding the UNCCD;
4. Complicated and slow administrative procedures in the management of natural resources;
5. Lack of competent personnel in administration (at all levels) and in scientific community for implementation of UNCCD;
6. Lack of financial resources for UNCCD activities;
7. Weaknesses in working with the public.

This result shows that the major efforts towards capacity building and strengthening in Bulgaria regarding implementation of the UNCCD requirements have to be orientated to the elaboration of a complete policy over the topic and the follow-up for its implementation. This is not only the most important area of future work, but also urgent are needed. The success of the work in this direction could be obstructed by the shortage of available resources.

The lack of legislative instruments has to be overcome urgently, but the shortage of available resources could be an obstacle in the process. Efforts should be dedicated also towards the improvement of management abilities in scientific community that has an important role in the successful fulfillment of Bulgaria's obligations under UNCCD. The activities related to the legislative regulation have to start rapidly, but it should be taken into account, that the solution of problems with the management in science is eased by more available resources.

The efforts towards capacity building should be focused on the problems in administration (procedures, staff) mainly due to the interactions with the other two conventions - on climate change and biological diversity. For the same reason, the problems with public relations should be solved too.

### **4. In-depth cause-effect analysis of the problems in regard to national capacity in fulfilling obligations under UN Convention to Combat Desertification**

The SWOT analysis results alone are insufficient to identify and formulate specific capacity building objectives and tasks. This is so because the results (as far as they relate to the weaknesses) include both problems and their causes without any attempt to clarify their

interrelations. This creates many difficulties in the formulation of tasks and objectives aimed at eliminating the causes of the existing problems and in the resolution of these problems in general. What is more, the existing capacity strengths are grouped in a most general way with no specific evaluation of their effects or of their likely capacity building benefits.

The cause and effect analysis allowed to identify:

- a) Problems, characterizing the consequences and unfavorable effects of missing or insufficient capacity in fulfilling Bulgaria's obligations under the Convention;
- b) Central problems as direct causes for failure to fulfill the Convention commitments and/or undesired consequences or adverse effects;
- c) Problems that cause and sustain the central problem;

It was assumed for the analysis that the problems causing and maintaining the central problem can be described as follows:

*Complex reasons* – the elimination of these causes is necessary in order to solve the central problem

*Primary reasons* – the elimination of these problems is not sufficient for solving the central problem

Based on the seven priority problem areas concerning the Convention, four central problems were formulated

**Central problem A: The necessity to combat desertification and the consequences as a result of desertification are not appreciated at all levels of state administration**

**Central problem B: Insufficient legislative regulation and applied practices on UNCCD**

**Central problem C: Ineffective scientific management in support of the UNCCD implementation**

**Central problem D: Insufficiently developed system for information, education and dissemination of knowledge on desertification issues**

The in-depth cause-effect analysis of interactions among the central problems, complex reasons and primary reasons, consequences and unfavorable effects of the problems shows that in order to implement the UNCCD a general national policy to combat desertification, land degradation and drought has to be established; National Strategy and National Action Program (NAP) need to be elaborated; relevant legislation should be adopted; administrative structures are to be established and coordination between the state institutions needs improvement; preconditions have to be set for partnership and joint activity between the stakeholders to implement the Convention; the issues on land degradation and drought have to be integrated at different levels and forms of education; public information and attention towards the problems with desertification at national and local levels has to be raised. The aforementioned leads to the conclusion that capacity building and strengthening at systemic, institutional and individual levels is needed for successful implementation of the UNCCD requirements.

## **5. Building the hierarchy of objectives for strengthening the capacity on UNCCD. Assets for achieving the objectives.**

The detailed cause-effect analysis of problem interrelations lead to the gradual creation of a **hierarchical tree of objectives**. It shows the required end results, the strategic objectives, the specific goals and tasks required to strengthen and build the capacity needed in fulfilling the commitments under the Convention.

The strengths of the available capacity in fulfilling the convention were analyzed in relation with a contribution to achieve the objectives. As a result they were divided in direct and indirect assets. The direct assets naturally contribute to the specific and strategic objectives attainment. The indirect assets do not lead directly to the attainment of the determined objective, but they are in favor of direct assets regeneration and activity. They are satellite factors and should be mobilized to reach the objective.

### **Strategic objective I: Combating desertification and eliminating consequences of drought are priorities in the work of the relevant competent bodies of the state administration**

*Specific objective I.1: Functional mechanism for information and cooperation on UNCCD activities between the administration and scientific community*

The tasks that have to be fulfilled in order to reach this specific objective include construction of an integrated information system (data, processing, analyses) for exchange of the available information on UNCCD between the administration and scientific community; establishment of a functional clearing house mechanism "CHM" on UNCCD; legislative regulation of the scientific information statute; formation the inter-governmental groups with participation of scientific representatives in the UNCCD activities and inclusion the desertification as an independent part of the National Annual Report on the state of environment.

Inter-governmental expert teams, working in assistance to the National Focal Point and the available competent scientists in the area of desertification could support the attainment of this objective.

*Specific objective I.2: Major requirements of UNCCD are elements of national strategies and programs, regional and local plans for development.*

The tasks for implementation to realize this specific objective are related to elaboration of the complex evaluation of the current status of the problem with desertification in Bulgaria through the establishment of interdisciplinary expert teams; updated existing programs and plans at national, regional and local levels in order to include the obligations on the UNCCD; inclusion of specific tasks to combat desertification into the local administration plans at the regions, affected by desertification and insurance of financial resources for implementation of the tasks on the Convention to Combat Desertification and liquidation the consequences of drought at all levels, coordination and cooperation between the local authorities to implement the UNCCD obligations.

Direct assets for the attainment of this objective are the Program on required measures in conditions of tendency to drought adopted by CM (2001); elaborated draft of the National

Agri-environmental Program and actual sector strategies and programs in respect to the problems with the desertification

*Specific objective I.3: Capacity building in the state administration to work on UNCCD*

The settled tasks for realization of the specific objective concern the strengthening of administrative capacity regarding to the number and competence of personnel at all levels of management and implementation of UNCCD; trained staff in the state administration for introduction of the integrated analyses on UNCCD activities, elaboration and implementation early warning systems for valuation of natural resources and utilization of alternative energy sources; trained staff in the municipal administration to advice the population on protection and sustainable utilization of the natural resources in the affected areas; participation in international activities related to information exchange, joint research, transfer of technologies and financial resources.

The achievement of this objective could be supported by the available institutions, personnel and technically sustained, the built structures at the area of energy efficiency and the institutions that control the effective utilization of natural resources; by the experience in evaluation of the past damages of pollution and prevention of the consequences; by technically built and financially sustained national network of monitoring the components of the environment (NASEM) and the national hydro-meteorological system (at NIMH); by the available competent specialists in sectors and the evaluators of the agriculture lands and economy specialists; by the built and functional National Agricultural Advisory Service and the Agency of Soil Resources under MAF.

**Final results** are the integrated management and sustainable utilization of natural resources; investigations and implementation of the projects on UNCCD activities; functional and complete early warning system on the periods with unfavourable climate changes and processes of land degradation.

**Strategic objective II: Established legislative basis and applied practices for preventing and limiting the processes of desertification**

*Specific objective II.1: Developed organization structure for implementation of the UNCCD*

The tasks foreseen to implement and reach the specific objective concern the establishment of functional inter-governmental coordinative council for implementation of UNCCD and the elaboration and adoption of a long-time strategy and National Action Program on UNCCD.

The attainment of this objective could be realized through the established horizontal and vertical administrative structures that may be involved in UNCCD activities; legitimated collection of information about the environmental status and presented proposal for formation of inter-governmental coordination council to implement the Convention by the National Focal Point to MOEW.

*Specific objective II.2: Developed legislative basis for implementation of the UNCCD*

The tasks, which implementation could support the realization of the settled specific objective, are related to elaboration and adoption of a new law for soil protection; elaboration and adoption of regulations for the requirements of monitoring the processes of desertification and the economic valuation of the adverse impact of desertification and elaboration of the unified methodologies for evaluation of desertification based on uniform terminology.

The direct assets that could support the implementation of the objective are related with the preparation of standard for soil dictionary; harmonization of the legislation in accordance with the requirements of EU and legislated biological agriculture and public access to the information.

*Specific objective II.3: Developed preventive measures and applied good practices in combating desertification*

The tasks supporting the implementation of this objective are related to elaboration and effective implementation of the prevention measures against the land degradation; elaborated and adopted resource-provided and long-term programs and incentives of agriculture development in the regions with a long drought periods; introduced environmentally friendly technologies in the modern Bulgarian agriculture; good practices on integrated management and sustainable use of natural resources and functional mechanism for stimulation the owners to implement them.

The objective could be realized with the utilization of the long experience in monitoring the components of the environment (NASEM); the elaborated national hydro-meteorological information system; the elaborated projects on good agricultural practices; the traditions and experience in combating erosion; the elaborated technologies for biological production; the experience in the elaboration of stable to drought sorts of culture plants; available legislative regulation and methodologies for evaluation of agriculture and forest lands productivity; the National plan for development of agriculture in rural regions with included prevention measures against the land degradation and the Draft of the National Agri-environmental Program.

**Final results** are identified by a sustainable development and introduced integrated approach in natural resource management; elaboration of national programs and plans for sustainable development and integration of UNCCD related issues ; effective control over the utilization of natural resources and ensure resources for UNCCD plans implementation.

**Strategic objective III: Modern science in support of the administration to implement UNCCD**

***Specific objective III.1: Strengthened science-research capacity at national and local levels on the issues of desertification***

The forthcoming tasks on this specific objective are related to the resource-provided national and regional research networks for interdisciplinary investigations on UNCCD and development of the departments for social-economic researches; Practice to involve local experts into the scientific-research activity; introduction of the team work and practice orientations in the interdisciplinary investigations; Financially ensured research and implementation of projects on UNCCD; modern management in the science regarding to the Convention.

It could rely on the direct assets for objective's realization, which are the scientific institutes and universities for scientific researches and exchange of information; the established National network of stations and research facilities / experimental sites combating erosion / and traditions in scientific research; the utilization of modern research methods – experimental sets, mathematic models and adaptation to the climate changes etc.; completed and current research projects on desertification and international cooperation and exchange of scientific information.

***Specific objective III.2: Structured database of the current status of environmental components and active exchange of scientific information***

The tasks, related to the implementation of this specific objective, ensure maintenance and effective use of available scientific information about environmental components and the organization of regular forums on UNCCD issues and utilization of modern tools and models for evaluation and analysis.

In assistance to the implementation of the present specific objective could be used the applied modern methods for investigation and research – experimental sets, mathematic models on the vulnerability and adaptation to the climate changes etc.; available research database from different institutes (in NIMH a database from the national hydro-meteorological network exists); integrated Database of the natural resources under the European Database (European Soil Map, Landcover, Forest resources etc.); completed and current research projects on desertification and published reports on the UNCCD issues.

***Final results*** that should be obtained during the realization of this strategic objective are: National policy and programs for raising qualification and establishment of scientific cadres with motivation and opportunity to work on UNCCD; introduced program principle of targeted support of the scientific potential; team scientific work capacity for technical preparation of projects.

**Strategic objective IV: Functional system of information, education and dissemination of knowledge on desertification issues ensuring strong public support**

***Specific objective IV.1: Functional systems of education and dissemination of knowledge***

The tasks, which realization could support the implementation of the specific objective are related to the elaboration of inter-disciplinary educational programs, initiated by the local communities on the problems with desertification and including the factors leading to desertification, the sustainable use and management of natural resources; elaborated educational and training programs on UNCCD at all levels of education and established associations (organizations), contributing the dissemination of knowledge on the problems with desertification among the public.

The implementation of this specific objective could be really supported by: the organization of information campaigns; the published printed issue of UNCCD; the national and regional seminars; the existing cooperatives for irrigation; the available scientific capacity used for

education and public information on the theme; the established centers for dissemination of knowledge and qualification; the established information centers at all governmental and regional institutions; the prepared educational facilities; provided information by Internet and the project for establishment of the Association for Biological Agriculture.

*Specific objective IV.2: Public support on UNCCD activities*

The necessary tasks in attaining this objective foresee the systematic national campaigns for popularizing the importance of the theme aiming at informing the public on UNCCD and understanding the need to combat desertification; distribution of the popular publications for information and education; planned and taken decisions made at national and local levels for implementation of the UNCCD with active public participation

The direct assets that are the base for realization of the objective are the established centers for dissemination of knowledge and qualification; the organization of information campaigns (incl. National and regional seminars); the published printed issue of UNCCD; the participation of NGOs in activities of environmental protection; the provided information by Internet; the established information centers at all governmental and regional institutions and the established educational facilities in the institutes and universities.

*The expected final results* foreseen to be obtained during the realization of the strategic objective are enhanced information and knowledge about the problems of UNCCD; active public position to support the UNCCD activities and educated staff in NGOs, working on UNCCD at local level.

On the base of the defined specific objectives and tasks and identified assets, the specific actions for capacity building and improvement should be determined. This task includes the proposition of specific activities and preparation of approximately schedule and budget. In addition it should be noted, where it is possible, which team or organization will be responsible for the implementation of UNCCD activities.