



Implementation of the Convention to Combat Desertification in Georgia

Institutional mapping

&

Assessment of capacity needs for monitoring and reporting

Tbilisi, 2016

The research was made under Green Alternative's project "Promotion of implementation of the UN three conventions: Institutional mapping and assessment of capacity needs for monitoring and reporting under three Rio conventions". The project was implemented with the financial assistance of the United Nations Development Programme (UNDP), and within the framework of the UNDP's project "Enhancing Environmental Monitoring and Reporting in Georgia".

The content of this publication is the sole responsibility of the author and can under no circumstances be regarded as reflecting the positions of the ENDP.

Author: Irina Svanidze, Green Alternative.

© Green Alternative, 2016.

Contents

Introduction.....	4
1. The parties involved in implementation of the Convention	5
1.1 Governmental authorities	5
1.1.1 President of Georgia and Georgian Government	5
1.1.2 Ministry of Environment and National Resources Protection of Georgia.....	5
1.1.3 Ministry of Agriculture of Georgia	8
1.1.4 National Statistics Office (Geostat)	8
1.2 Local self-governance bodies (Municipalities)	9
1.3 Scientific-research institutions and nongovernmental organizations.....	9
1.3.1 Educational and research institutions.....	9
1.3.2 Nongovernmental organizations	10
1.4 Relationships between the parties engaged in implementation of the convention.....	10
2. National action programmes and reports on implementation of the convention	10
2.1 National Action programmes to combat desertification.....	11
2.2 National Reports	12
3. Monitoring of implementation of the convention and reporting: major shortcomings	12
3.1 Legislation	12
3.2 Access to information.....	13
3.3 Human and financial resources	14
3.4 The data.....	14
3.5 Technologies	14
Conclusion	15
Annex 1. Non-exhaustive list of projects implemented at scientific-research institutions.....	16
Annex 2. Non-exhaustive list of ongoing and completed projects implemented by NGOs and donor organizations	18

Introduction

The United Nations declared desertification the problem of global dimension directly related to poverty and climate change. The issue of combat desertification was raised already at the United Nations Conference on Environment and Development (Rio de Janeiro, 1992); and on 17 June 1994 the UN “Convention to Combat Desertification” was adopted in Paris.

The objective of the Convention is to combat desertification and mitigate the effects of drought using effective measures. In order to achieve the objectives of the Convention, the parties should develop action programs to combat desertification and mitigate the effects of drought and ensure participation of population and local communities in the implementation process. The Convention “To Combat Desertification” creates a foundation for global combat of desertification and land degradation, and for establishing international system of its implementation.

Georgia is a land-poor country, some regions of which have been experiencing desertification related problems during recent years. The key factors causing land degradation are excess grazing, reduction of forest areas, unsustainable agricultural practices.

Desertification process in Georgia is limited by geographic range and covers only certain regions. Its activation can be observed in Shida Kartli and Qvemo Kartli, Samtskhe-Javakheti and Kakheti certain districts (Dedoplistskaro, Signaghi, Sagarejo districts)¹.

On 15 October 1994 Georgia signed the Convention “To Combat Desertification”. On 23 June 1999 Georgian Parliament ratified the Convention², and on 21 October 1999 Georgia became a Party to the Convention to combat the desertification.

The conference of the Parties in 2001 developed Annex 5 to the Convention to Combat Desertification for Central and Eastern Europe Countries (“Regional Implementation Annex for Central and Eastern Europe”). The same year Georgia became the part of the region under Annex 5.

The Convention to Combat Desertification provides, that for the efficient implementation of the Convention, the affected country Parties are required to:

- Develop the Convention implementation long-term strategies – national programs to combat desertification;
- Give priority to combat desertification and mitigate the effect of droughts;
- Promote local population’s awareness raising and their inclusion in the activities related to combat desertification and mitigation of drought;
- Support implementation of the Convention through strengthening the existing, and the introduction of new laws;
- Present national reports to the Secretariat

During present study the following issues were addressed:

¹ Second national programme of actions to combat desertification, 2014-2022.

² Resolution #2141-III of 23 June 1999 of the Parliament of Georgia on ratification of the Convention to Combat Desertification

- Georgia reports to the Convention to combat desertification (5 national reports), first national action program to combat desertification, and second national action program to combat desertification 2014-2011;
- Materials related to reporting to the Convention Secretariat;
- Decrees and regulatory acts of Georgian Government on establishment of agencies/structural units in charge of implementation of the Convention to Combat Desertification (Annex 3: References).

Interviews with different stakeholders were conducted (Nino Chikovani – land and subsoil protection service; Ketii Tsereteli – RECC; Nana Bolashvili – Institute of Geography; Eka Sanadze – Soil resources protection service; Elene Bakradze – National Environment Agency; Gizo Urushadze – Institute of Soil Science; Maya Meladze – Institute of Hydrometeorology; Kakha Artsivadze – Nakresi).

1. The parties involved in implementation of the Convention

Different governmental authorities, self-government bodies, NGOs, research institutions and other parties are involved in the “Convention to Combat Desertification” implementation process. Below is a review of their role and functions in the Convention implementation process.

1.1 Governmental authorities

1.1.1 President of Georgia and Georgian Government

President of Georgia is the head of the state of Georgia. Powers of the President are defined under Georgian Constitution and several other regulations; the President’s competency in certain fields can be found in sectoral legislations. As for combat desertification, on 2 April 2003 presidential decree #112 was signed on approving the first national action program to fight the desertification. The President was then head of executive power.

Georgian President’s powers were significantly curtailed as a result of constitutional reform of 2013. Second national action program to fight the desertification (2014-2022) was approved in 2014 not by the President but by Georgian Government (Georgian Government’s Resolution #742 of 29 December 2014). By law, Georgian Government is the highest executive body coordinating and supervising the ministries’ activities.

1.1.2 Ministry of Environment and National Resources Protection of Georgia

The key governmental body to implement the Convention is Ministry of Environment and National Resources Protection of Georgia. The Ministry acts as a focal point for the Convention. The institution has specific functions and responsibilities in the field of managing land resources and prevention of its degradation, promote awareness of local population on desertification related issues. The Ministry Regulations provides for its obligations to³:

- Coordinate and monitor the fulfillment of obligations under international environmental agreements;
- Communicate, within its competence, with Secretariats of international environmental agreements and international processes on behalf of the State of Georgia;
- Ensure, within its competence, conservation and protection of land resources, take measures against soil erosion, improved productivity of land and the rehabilitation.

³ Resolution #98 of 26 April of 2013 of Georgian Government.

Besides, Ministry of Environment and Natural Resources Protection, together with Ministry of Agriculture, monitors the performance of work on: land reclamation; improved productivity of land; removal, storage and preservation of the quality of the productive topsoil; timely and long-term use of potentially productive layers and rocks⁴.

The structural division, working on desertification/soil degradation issues within the Ministry of Environment and Natural Resources is **Land and Subsoil Protection Office**⁵. The functions and tasks of this office are:

- Planning desertification and soil degradation mitigation processes and coordination of their implementation;
- Receiving from LEPL “National Environment Agency” the results of observations of chemical land amelioration and reclamation, comprehensive measures to protect against erosion, the content of nutrients in the soil, soil contamination, qualitative data, the influence of drought, erosion and other extreme phenomena on the soil, their analyses and development of appropriate proposals;
- Creation of the database of contaminated with harmful substances and residues lands.
- Participation, within its competence, in developing annual and long-term state programs on the basis of observation and appropriate study of productivity of land
- Creation of the database on processed, exhausted and abandoned subsoil;
- Initiation of international land resources management projects;

For the purposes of this study it is important to note, that it is this Office that ensures collection of information from different agencies on: chemical land amelioration and reclamation, comprehensive measures to protect against erosion, the content of nutrients in the soil, soil contamination, qualitative data, the influence of drought, erosion and other extremal phenomena on the soil, further preparation of national action programs and reports, and their submission to the Convention Secretariat.

The Office has no supervisory function. Supervisory function is endowed with **Environmental Monitoring Department**, a state sub-departmental institution under the Ministry.

One of the key functions of Environmental Monitoring Department is planning and coordination of governmental oversight on environment protection and use of natural resources; and monitoring compliance of Georgia with international commitments in environment protection area⁶.

It should be mentioned herewith that the function of initiation international environmental agreements and participation in organizational procedures is the function of the **Department of Environmental Policy and International Relations** of the Ministry of Environment and Natural Resources Protection. The Department is also authorized to⁷:

- Participate in the identification of priority areas of cooperation with international organizations and foreign states, and ensure coordination and monitoring of compliance with international environmental agreements;

⁴ Governmental resolution # 424 of 31 December 2013.

⁵ Order #15 of 10 May 2013 of Minister of Environment and Natural Resources Protection.

⁶ Order #26 of 10 May 2013 of Minister of Environment and Natural Resources Protection.

⁷ Order #183 of 26 February 2015 of Minister of Environment and Natural Resources Protection.

- Coordinate the activities of national responsible persons/focal points of international environmental agreements.

As to the public access to information, LEPL **Environmental Information and Education Center**, together with **Public Relations Department**, are responsible for it.

Environmental Information and Education Center is guided in its activities by the principles of the Convention on Access to information, public participation in decision- making and access to justice in environmental issues. Basic functions and objectives of the **Center** are⁸:

- Ensuring accessibility of environmental information through web-sites and multimedia
- Search for information on environmental projects, creation of database and making it public

Basic functions and objectives of **Public Relations Department** are⁹:

- Relations with the public and media;
- Ensuring accessibility and transparency of environmental information and use of natural resources and release of public information on these topics;
- Promote raising environmental awareness of the public, planning and holding environmental activities and campaigns.
- Inform the public on the Ministry activities and the decisions to be taken in environmental sector; organize appropriate meetings with parties concerned if needed;
- Administer the Ministry webpage and social networks.

National Environmental Agency, LEPL under the Ministry of Environment and Natural Resources Protection, also plays important role in Convention implementation. The agency regulations provides for the following its functions¹⁰:

- Create mutually compatible monitoring systems on the territory of Georgia (air, surface and groundwater, the sea, soil) to monitor hydro-meteorological and geodynamic processes, environment pollution conditions, and to ensure their well-functioning;
- Update stock of news on environment etc.

The Agency develops annual plan in advance, under which carries out the monitoring of: surface water, the air and the soil in terms of their contamination. This function is carried out by the Department of Environmental Pollution Monitoring, which has its field offices in Kutaisi and Batumi. Besides, they have monitoring stalls. As said one of the Department representatives, the studies are basically carried out in city-centers and bus-station, and accordingly do not cover agricultural land.

Land resources and subsoil protection department immediately communicates with the **Department of Environmental Pollution Monitoring** of National Environment Agency on desertification related issues. The key (land-

⁸ Order #175 of 5 February 2015 of Minister of Environment and Natural Resources Protection.

⁹ Order #19 of 10 May 2013 of Minister of Environment and Natural Resources Protection

¹⁰ Order #27 of 10 May 2013 of Minister of Environment and Natural Resources Protection.

related) function of the department is regular monitoring of chemical, biological and microbiological contamination of the soil.

1.1.3 Ministry of Agriculture of Georgia

Ministry of Agriculture of Georgia, similarly as the Ministry of Environment and Natural Resources Protection, has specific functions and responsibilities in terms of managing land resources and prevention of its degradation. The main task of the Ministry with respect to ground is governmental oversight over land conservation and improved productivity of land. In particular, under the law on Land Conservation and Restoration/Improvement of productivity of land¹¹, Ministry of Agriculture of Georgia has the right to inspect:

- The land productivity status;
- Implementation of land conservation and improved productivity arrangements and their efficiency;
- Radionuclide, heavy metals and toxic elements, entomologic, helminthological, bacterial or viral contamination of soil, and conduct anti-contamination measures in coordination with Ministry of Environment and Natural Resources Protection.

It is the **Department for management of land resources** of the Ministry of Agriculture that works on desertification/land degradation related issues. The competences of the Department include¹²:

- Participation in the creation of a single bank of geo-data of the land qualitative characteristics (soil atlas);
- Organize development of goal-oriented programs of activities against land erosion, and improved productivity of land

Currently the department is implementing the project, implying rehabilitation of 1600 ha saline/degraded land in Erisimedi village of Dedoplistskaro municipality. (Project title is “Rehabilitation of 1600 ha saline, i.e. degraded soils near Erisimedi village”).

1.1.4 National Statistics Office (Geostat)

National Statistics Office of Georgia (Geostat) is a Legal Entity of Public Law, and its main function is to produce official statistics and disseminate statistical information. Key objective of National Statistics Office is collection, processing, storage and presentation of statistical data on the state of social, demographic, economic and natural environment on the basis of international statistics principles¹³.

National Statistics Office collects and makes public, alongside with other information, the data regarding the environment and agriculture. One of the units of Geostat is the department of agriculture, environment and food security. Basic functions of this department are:

- Plan, organize and conduct general agricultural inventory, as well as different statistical surveys in agricultural and environmental sectors.
- Conduct official statistical surveys in agricultural and environmental sectors;

¹¹ The law on Land Conservation and Restoration/Improvement of productivity of land, adopted 8 May 2003, # 2260 – IIs

¹² Order #2-51 of the Minister of Agriculture of 27 March 2012.

¹³ Governmental resolution #406 of 31 December 20013.

In 2004-2005 National Statistics Office of Georgia conducted the first agricultural inventory in Georgia. On the basis of the studies a guidebook, containing diverse information on different aspects of Georgia's agriculture in regional context, was published. In particular, the guidebook specifies the acreage of agricultural lands owned by different farms, and their structure by the forms of land use¹⁴.

1.2 Local self-governance bodies (Municipalities)

The functions of local self-government bodies in the context of implementation of the Convention to combat desertification are not clearly defined in the law. Under the local self-government Code (Article 16) the management of natural resources, including water and forest resources, and the land resources owned by municipalities is within the jurisdiction of municipalities.

At the same time National Strategy¹⁵ of Georgia's regional development in 2010-2017 was adopted in 2010. One of the articles of this Strategy ("Ensuring agriculture and environment protection") provides for local self-government bodies' responsibilities with respect to the land. In particular it is said, that local self-government bodies shall enjoy appropriate financial support in order to be able to precisely register agricultural lands they possess, and to draft land balance.

1.3 Scientific-research institutions and nongovernmental organizations

Several NGOs and scientific-research institutions cover desertification issues in their activities. Ministry of Environment and Natural Resources Protection, while drafting its national report, collects land-related information from these institutions.

1.3.1 Educational and research institutions

The following scientific-research institutions carry out the arrangements to maintain compliance with the Convention requirements: Vakhushti Bagrationi Institute of Geography of Tbilisi State University, Institute of Hydrometeorology and Mikheil Sabashvili research institute of soil science, agricultural chemistry and reclamation. Until the 90-ies last century scientific-research institutes regularly monitored and studied the soil quality in many regions of Georgia. Recommendations on the protection against erosion and improvement of productivity were drafted on the basis of these studies.

Currently scientific-research institutions lack appropriate technologies, which creates a significant constrains to do the research. Besides, their studies and projects do not cover the whole territory of Georgia (are limited to certain regions). In Annex 1 one can find the list of recent studies carried out by scientific-research institutions.

It should be mentioned herewith, that 2014-2022 National Strategy provides for a range of functions, possible executors of which would have to be scientific-research institutions. For example, education and awareness-raising of local population; monitoring of implementation of updated national action plan; monitoring natural and man-made disasters (water and wind erosion, mudflows and landslides, irrigational erosion, forest felling, mining and quarrying etc.).

¹⁴ Agricultural survey available at: http://www.geostat.ge/?action=page&p_id=55&lang=geo

¹⁵ Governmental resolution # 172 of 25 June 2010.

1.3.2 Nongovernmental organizations

NGOs, in general, play an important role in terms of awareness-raising. A number of NGOs in Georgia are now working on the problems of combat desertification and raising awareness in this field. These are: RECC, CENN, NACRES, and Green Movement/Friends of the Earth, Green Alternative, and Association of local self-governments of Georgia.

Currently some of them are implementing projects on integrated management of erosions, pastures' assessment and management plans, sustainable management of rural landscape and land resources etc. At the same time these projects cover only certain regions of Georgia. In Annex 2 one can find the list of projects (ongoing and completed) implemented by NGOs during recent years.

It should be mentioned herewith, that 2014-2022 National Strategy provides for a range of functions, possible executors of which would have to be NGOs. For example: education and awareness-raising of local population; identification of the areas endangered by desertification; monitoring natural and man-made disasters (water and wind erosion, mudflows and landslides, irrigational erosion, forest felling, mining and quarrying etc.).

1.4 Relationships between the parties engaged in implementation of the convention

As it has been mentioned, many different institutions are involved in the implementation of the Convention (government organizations, NGOs and scientific-research institutions). The liaison agency for all of them is the Ministry of Environment and Natural Resources Protection, which collects information from these institutions and uses it for its national reports, as well as for planning future projects.

As head of the Department for land resources and subsoil protection (Nino Chikovani) mentioned in her interview, there have not been the facts of concealment of information or refusal to provide them to the Ministry of Environment and Natural Resources Protection. They immediately provide the Ministry with the information or any other data that they possess on the basis of the request from the latter. Exchange of information between different institutions is conducted mainly in the period of preparing report to the Convention Secretariat (on the stage preceding the national report).

It should be mentioned, that the situation with exchange of information between research institutions, NGOs and governmental institutions is not easy. The results of researches are not always public, which poses problems with exchange of information between different institutions. According to one of the employees of the Institute of Geography, if they request the information, which is not publicly available, from another research institution or a governmental organization, they sometimes pay for it, or, more often, they do not get this information.

In fact, there is no exchange of information between different institutions. This significantly complicates the decision-making process and makes it less efficient.

2. National action programmes and reports on implementation of the convention

According to the Convention to Combat Desertification, for the efficient implementation of the Convention, states parties shall:

- Develop long-term integrated strategies – national action programs to combat desertification - in order to implement the Convention;

- Submit national reports to the Secretariat.

2.1 National Action programmes to combat desertification

States parties to the Convention are obliged to develop long-term strategies – national action programs to combat desertification – to implement the Convention. The purpose of national action programs is to identify:

- the factors contributing to desertification
- practical measures necessary to combat desertification and mitigate the effects of drought

Georgia, as a state party to the Convention developed the first national action program to combat desertification in 2003 (adopted on 2 April 2003 under presidential Decree No. 112.).

Prior to adopting the first national action program, the standing governmental commission for implementation of the Convention to combat desertification was set up in 2001¹⁶. Representatives of governmental institutions were members of the commission. The commission convened twice a year and its decisions were binding for ministries and institutions within their competence. Coordination function had been assigned to the Ministry of Environment and Natural Resources Protection.

Simultaneously with the establishment of the commission, the development of first national action program started. The main purpose of the commission was the fulfillment of activities under the national action plan to combat desertification. In fact the commission worked only for two years and after 2003 “Rose Revolution” its work was discontinued. (Officially on 25 August 2005)¹⁷.

The development of first national action plan to combat desertification started in 2000 and it was the above mentioned commission that coordinated this process.

According to the first national action program Kakheti and Qvemo Kartli were identified as vulnerable areas in Georgia.

The purpose of the first national action program was: identification of desertification endangered areas and definition of their territory; combat desertification through sustainable use of natural resources, adequate planning and conservation measures; participation of expert organizations and institutions in the combat of desertification; development of international cooperation and partnership to combat desertification.

Limited funding was provided for the first national action program and only small pilot projects were included in it. Overall coordination of national action program development process was carried out by Ministry of Environment and Natural Resources Protection.

Second national action program to combat desertification was developed in immediate coordination with Ministry of Environment and Natural Resources Protection, and was adopted in 2014 (Resolution No. 742 of Georgian Government of 29 December 2014). This program covers the period of 2014-2022. Second national program provides for the objectives and activities to be implemented stage by stage. The coordination function under the national program was assigned to the Ministry of Environment and Natural Resources Protection.

¹⁶ Order #282 of the President of Georgia of 15 July 2001.

¹⁷ Order #720 of the President of Georgia of 25 August 2005.

According to second national programme, Shida Kartli region of Georgia was added to the list of vulnerable areas. Hence, three Georgian regions: Kakheti, Kvemo Kartli and Shida Kartli were defined as vulnerable areas.

In working meetings within the framework of development of second national action program participated: Ministry of Agriculture, Ministry of Infrastructure and Regional Development, Ministry of Economy and Sustainable Development, Ministry of Labor, Health and Social Security, Ministry of Education and Science, LEPL National Forest Agency, LEPL Agency for Protected Areas; representatives of Dedoplistskaro, Sagarejo, Signaghi, Gori, Kareli, Gardabani municipalities, Institute of Geography, Agrarian University, GIZ, UNDP and some NGOs (CENN, NACRESI, Elkana, Georgian greens/Friends of the Earth).

The national action programme provides for the inclusion of scientific-research institutions, education and public awareness, monitoring desertification, agricultural policy planning and international cooperation.

At the same time, under second national action program, the functions among ministries, research institutions and NGOs are well distributed, each has its own functions and hence this issue is settled and there is no duplication. (The document contains a table of specific activities to be taken in the Convention implementation process and the list of implementing organizations.

2.2 National Reports

Pursuant to the UN Convention to Combat Desertification each state party is obliged to submit the report on Convention implementation to the Convention Secretariat biyearly. In order to comply with this obligation Georgia has presented five national reports:

- First national report - prepared in 2000
- Second national report - prepared in 2002
- Third national report - prepared in 2006
- Fourth national report - prepared in 2010
- Fifth national report - prepared in 2014

No report had been prepared on implementation of the Convention to Combat Desertification between 2006 and 2010. According to the head of department of land resources and subsoil protection of Ministry of Environment and Natural Resources Protection the Conference of the Parties to the Convention did not request national report in this period and respectively it was not prepared until 2010.

3. Monitoring of implementation of the convention and reporting: major shortcomings

3.1 Legislation

Legislation on land degradation comprises the law "On Soil Protection", the law on "Soil Conservation and restoration-improvement of productivity", several technical regulations and international agreements. The main problem lies in the implementation of the law, the reason being lack of control.

At the same time the environmental legislation does not include a law or by-law on environmental monitoring, which would clearly define appropriate monitoring agencies and their competences. The information about environmental monitoring is distributed in different laws and regulations of different state institutions and is limited

to general provisions. Hence, appropriate amendments and changes need to be introduced to current law (e.g. in the Law of Georgia “On soil protection” and “On conservation and restoration-improvement of land productivity”).

3.2 Access to information

One of the main purposes of second national action program is information of the community, awareness raising and their inclusion in decision-making. The situation in this respect needs to be improved. Pursuant to second national action program to combat desertification (2014-2022) Ministry of Environment and Natural Resources Protection shall regularly put on its web-page the comprehensive information on Convention-related documents.

Currently only a one-page general information on soil protection can be found on the Ministry web-page¹⁸. Information regarding land protection and desertification can be found mainly on LEPL “Environmental Information and Education Center” web-page¹⁹.

At the same time fourth national report of 2010-2012 is not put on the web-page of Environmental Information and Education Center. According to Head of Land resources and subsoil protection office, it was uploaded online and can be found in English on the web-page of the Convention to Combat Desertification²⁰.

Frist national action program to combat desertification is not downloaded either.

The fifth national report is downloaded on Environmental Information and Education Center web-page also in English, which creates a barrier for certain part of Georgian population to get familiarized with it.

Resolutions of the President of Georgia and Georgian Government, under which the first and second national action programs were approved, are also not available.

Keeping in mind that there still is a problem of access to the internet in different regions of Georgia, even the documents downloaded there cannot be made available for the population in these regions. Even if the parties concerned try to find the information on the Ministry web-page, they will not be able to fully make it.

As for the media inclusion, the issues related to desertification are seldom covered by the media. Local print media does not publish articles on this issue either. Respectively, representatives of local communities are unable to get the information.

As for the information about Georgia, available on the Convention web-page (<http://www.unccd.int>), according to it National Focal Point (NFP) on the Convention to Combat Desertification is land resources and subsoil protection office (head of office). NFP on scientific and technological issues is Nana Bolashvili. Some of the information about Georgia is not available on the Convention web-page (e.g. second national action program to combat desertification 2014-2022).

¹⁸ Visit: http://moe.gov.ge/index.php?lang_id=GEO&sec_id=54

¹⁹ Visit: <http://www.eiec.gov.ge/%E1%83%97%E1%83%94%E1%83%9B%E1%83%94%E1%83%91%E1%83%98/Soil.aspx>

²⁰ Visit: <http://www.unccd-prais.com/Data/Reports>

3.3 Human and financial resources

Lack of human and financial resources is one of the main problems in implementation of the Convention to combat desertification.

As was mentioned above, the Convention implementation functions in the Ministry of Environment and Natural Resources Protection are assigned to land resources and subsoil protection office. However, this department is not fully involved in the process due to the fact that only two people out of the staff of this office are really working on the land issues. Proceeding from the above when it is time to report (to draft national report) only one representative of the Ministry of Environment and Natural Resources Protection is made accountable. So the Ministry has to outsource independent expert who performs this task.

One of the main constraints for scientific-research institutions to carry out the research and collect data is the lack of financial resources. According to their representatives they do the research within the budget limits. The only source of financing their projects is Shota Rustaveli National Scientific Foundation. At the same time fund-raising with this foundation is also related to a range of constraints. The main problem is a large number of applicants, of whom only few can receive grants.

3.4 The data

The absence of updated data is one of the problems in implementing the Convention. At this stage the Ministry of Environment and Natural Resources Protection is not conducting the study for the soil quality assessment.

We do not have updated information on the qualitative and quantitative assessment of soil throughout Georgia. There is no soils digital data-base that would be linked to GIS database. Such a database would enable introduction of updated information. Respectively there is no opportunity to see the whole picture and to identify real problems. Representatives of local municipalities also do not have updated information. According to representatives of scientific-research institutions the municipalities, when requested, provide them with the information of 1980s. It should be mentioned that no one is monitoring systematically desertification and degradation process on a whole country scale in Georgia. The monitoring is carried out in small areas only within specific projects and appropriate activities are planned and implemented accordingly. That is why we do not have a complete picture of what is going on, e.g. where and what level of degradation do we have, what is the cause of erosion, what is the area of degraded lands etc.

Each of these issues requires careful analyses, e.g. there are several factors influencing erosion and each of them needs an integrated study.

Currently there are several weather stations in Georgia, but they do not cover all of its regions. So, here also is not possible to have a comprehensive picture.

Another problem is the loss of the old data and part of the maps at scientific-research institutions. They were lost during past years and are practically irrecoverable.

3.5 Technologies

The lack of advanced technologies prevents institutions from efficient implementation of projects. Lack of technologies has always been, and continues to be one of the major constraints in the research process. There are labs in

Georgia, but representatives of other institutions cannot use them free; so again it is related with unaffordable expenses.

Conclusion

Following picture emerges in respect of monitoring and reporting on implementation of Convention to Combat Desertification:

- Several governmental and nongovernmental organizations and scientific-research institutions are involved in implementation of the Convention;
- The activities by these organizations (regarding the Convention to Combat Desertification) do not apply to whole Georgia and are limited to some of its regions;
- The Ministry is coordinating drafting of national reports, and for these purposes NGOs and independent experts are usually outsourced;
- Human resources of land and subsoil protection office are not enough to cope with the whole workload;
- NGOs and scientific-research institutions play important role in implementation of the Convention to Combat Desertification;
- Lack (often nonexistence) of cooperation and exchange of information between different institutions is preventing efficient implementation of the Convention;
- Most part of the population has no access to information (only through Environmental Information and Education Center web-page, which also is not comprehensive, does not provide efficient accessibility).

Annex 1. Non-exhaustive list of projects implemented at scientific-research institutions

Ongoing projects:

- Preparation of soil atlas – executor: Institute of Soil Science, Agro-chemistry and Land Reclamation of Agrarian university of Georgia
- Create/update the database of Kakheti region water resources – executor: Vakhushti Bagrationi Institute of Geography of Tbilisi State University;
- Head of Laboratory for air, water and soil analysis of Environmental pollution monitoring Department is currently implementing Shota Rustaveli National Scientific Foundation funded project, called “Study of contamination of Kakheti region artificial water reservoirs and surrounding territories”. The projects shall be implemented in Kakheti region, in particular, Alazani valley. The purpose of this study is the survey of Alazani valley ecological state, definition of quality and productivity of saline soils there. Duration of the project is two years and will be completed in 2018.

Implemented projects:

- Creation of database of many years’ research works – executor: Institute of Soil Science, Agro-chemistry and Land Reclamation of Agrarian university of Georgia;
- Exodynamic processes in Kakheti region and anthropogenic landform transformation - executor: Vakhushti Bagrationi Institute of Geography of Tbilisi State University;
- Geomorphological characteristics of South Georgian highlands and geodynamic processes’ risk assessment - executor: Vakhushti Bagrationi Institute of Geography of Tbilisi State University;
- Kakheti region landscapes’ identification, demarcation and classification - executor: Vakhushti Bagrationi Institute of Geography of Tbilisi State University;
- Changeability of Gardabani region alkaline soils after the use of chemical amelioration – executor: Institute of Hydrometeorology (project timeframe – until 2006);
- Regularities of migration and accumulation of heavy metals in Kvemo Kartli soils and vegetation – executor: Institute of Hydrometeorology (project timeframe – until 2008);
- The establishment of oil pollution level of East Georgia habitat (soil, water, air) and development of its minimization project – executor: Institute of Hydrometeorology (project timeframe – until 2009);
- Measures to improve irrigated soils contaminated with heavy metals in Bolnisi region, south of Tbilisi - executor: Vakhushti Bagrationi Institute of Geography of Tbilisi State University; (project timeframe – 2009-2012);
- Current geo-ecological state of Kakheti region and ways of its improvement - executor: Vakhushti Bagrationi Institute of Geography of Tbilisi State University; (project timeframe – 2009-2012);
- Integrated zoning of Georgia by drought levels and stochastic forecast of the need for watering grapes – executor: Institute of Hydrometeorology (project terms 2008-2009);
- Assessment of climatic and agro-climatic resources of Shida Kartli (Tskhinvali region) under the expected climate warming – executor: Institute of Hydrometeorology (project timeframe 2008-2010);
- Climatic and agro-climatic atlas of Georgia – executor: Institute of Hydrometeorology (project timeframe – 2011);

- Planning of mitigating the degradation of Alazani Valley saline soil against the background of current climate changes – executor: Institute of Hydrometeorology (project terms 2011-2012);
- Soil erosion protection Concept of Georgia – executor: Georgian National Academy of Sciences (project timeframe – 2012-2020);
- Desertification and droughts conducive temperature and precipitation modal structure and the influence of climate change on it – executor: Institute of Geography (project timeframe 2010);
- Land degradation in view of current climate change – executor: Institute of Hydrometeorology (project timeframe 2012).

Annex 2. Non-exhaustive list of ongoing and completed projects implemented by NGOs and donor organizations

- Conservation management plans of arid and semi-arid ecosystems of Georgia – executor: NACRES; the purpose of the project is to protect endangered arid and semi-arid ecosystems through sustainable management of natural resources;
- Training in environmental/investigative journalism for environment and security case studies (2005) – executor: CENN;
- The elimination of the risks of obsolete pesticides – executor: CENN;
- Public environmental information center in Gardabani – on ecological problems in school classes (2007) – executor: CENN
- Capacity building and development of cooperation for mitigation of the results of natural calamities in Georgia and overcoming the poverty – executor: CENN;
- Sustainable rehabilitation against the climate of degraded landscapes (2008-2011) – executor: GIZ;
- Local capacity building and enhancement of regional cooperation aiming at adaptation to climate changes protection of biodiversity of Georgia and South Caucasus (2011-2014) – executor: Mercy Corps Georgia, CENN;
- Sustainable management of soils in South Caucasus aiming at mitigation of soil degradation and poverty reduction (2009-2012) – executor: CENN together with REC-Caucasus;
- Atlas of risks and threats of natural calamities characteristic to Georgian territory (2012) – executor: CENN;
- Identification and Implementation of Adaptation Response to Climate Change Impact for Conservation and Sustainable Use of Agro-Biodiversity in Arid and Semi-Arid Ecosystems of South Caucasus (2011-2013) – executor: REC-Caucasus;
- Integrated erosion control in the South Caucasus (2014-2016) – executor: GIZ
- Land management improvement for sustainable agriculture in Georgia (2014-2016) – executor: Green Alternative;
- Sustainable management of landscape and land in rural areas to reduce degradation and combat poverty (2015-2018) – executor REC-Caucasus;
- Bring national action program strategy and national reports into line with the requirement of the UN Convention to Combat Desertification (2012-2014) – executor: REC-Caucasus;
- Sustainable grazing management in Lagodekhi protected areas (2014-2015) NACRES
- Assessment of Vashlovani National Park traditional grazing zones and development of the management plan (2014-2015) – executor: NACRES
- Assessment of grazing in Tusheti National Park and Tusheti protected areas (2014-2016) – executor: NACRES
- The USAID funded program “Institutionalization of Climate Change Adaptation and Mitigation in Georgian Regions (ICCAMGR)” is being implemented by National Association of Local Authorities of Georgia (NALAG). The purpose of the project is to integrate environmental and climate change considerations into policy priorities of local authorities through the establishment of special units on climate change, environment and sustainable agriculture. It will enable the implementation of a broad range of statutory functions of local authorities on natural resources management, spatial planning and sustainable development stipulated in the Organic Law of

Georgia on Local Self-Governance and sectoral legislation. The goal is to foster institutionalization of climate change adaptation and mitigation at the local level by building capacities of local authorities.