



## **3<sup>rd</sup> Romania's National Report on the Implementation of the United Nations Convention to Combat Desertification**



**Bucharest 2006**

## Acronyms lists

AFM	Environment Fund Administration
ANCA	National Agency for Agricultural Consultancy
ANCPJ	National Agency for Cadastre and Estate Publicity
ANIF	National Administration for Land Improvement
ANM	National Administration of Meteorology
ANPM	National Agency for Environmental Protection
ALPM	Local Agency for Environmental Protection
ARPM	Regional Agency for Environmental Protection
ASAS	Academy of Agricultural and Forestry Sciences
AUAI	Association of Irrigation Water Users
CNCSDTD	National Committee to Combat Drought, Land Degradation and Desertification
CRNS	National Strategic Reference Framework
CELCFA	European Commission for Combat foot-and-mouth disease
CNFS	National Coordinating Committee for Structural Funds
DADR	Direction of Agriculture and Rural Development
EC	European Community
ECE	Central and Eastern Europe
EUMETSAT	European Organisation for the Exploitation of Meteorological Satellites
EIONET	European Environment Information and Observation Network
ECMWF	European Centre for Medium-Range Weather Forecasts
FAO TCP	Food and Agriculture Organization – Technical Cooperation Program
FEDER	Rural Development European Fund
GEF	Global Environment Facility
GNM	National Environmental Guard
HG	Government Decision
ICAS	Forestry Research and Management Institute
ICCV	Life Quality Research Institute
ICCPT	Institute for Cereals and Technical Plants Research "Fundulea"
ICID	International Commission for Irrigations and Drainage
ICIM	National Institute for Environmental Protection Research and Development
ICITID	Irrigation and Drainage Systems (Baneasa- Giurgiu)
ICPA	Research Institute for Pedology and Agro-Chemistry
ICPCP	Research and Production Institute for Grassland Culture (Măgurele)
IEA	Institute of Agrarian Economy
IEN	Institute of National Economy
IFAD	International Fund for Agriculture Development
IMM	Multilateral Environmental Agreements
INS	National Institute of Statistics
IPGRI	International Plant Genetic Ressources Institute
ISTA	International Seed Testing Association
IUFRO	International Union of Forest Research Organizations
MAAP	Ministry of Agriculture, Food and Forests
MAI	Ministry of Administration and Domestic Affairs
MAKIS	Modernizing Agricultural Knowledge & Information Systems Project
MAPDR	Ministry of Agriculture, Forests and Rural Development
MAPM	Ministry of Waters and Environmental Protection
MAPPM	Ministry of Waters, Forests and Environmental Protection
MFP	Ministry of Public Finance
MMGA	Ministry of Environment and Water Management
NCSA	National Capacity Self-Assessment For Global Environmental Management
NUTS	Nomenclateur des Unité Territorial Statistique
OCEMN	Organization for "Black Sea" Cooperation
OECD	Organization for Cooperation and Economical Development
OEPP	European Mediterranean Organization for Plant Protection
OIZ	International Organization of Sugar
OIE	International Bureau of Epizooties
OIV	International Organization for Vineyards and Wine
OM	Minister's Order

OMM / WMO	World Meteorological Organization
ONG	Non-governmental Organization
OUG	Government Emergency Ordinance
PHRD	Japan Policy and Human Resources Development Fund
PCF	Prototype Carbon Fund
PHARE	Pologne, Hongrie Assistance à la Reconstruction Economique
PLAM	Local Environmental Action Plan
PNAinc	National Plan for Poverty Combat and Promotion of Social Inclusion
PNAPM	National Action Plan for Environmental Protection
PNADR	National Program for Agriculture and Rural Development
PND	National Development Plan
PNUD	United Nations Development Program
PRRM	Regional Environmental Reconstruction Program
PO	Operational Programs
PRAM	Regional Environmental Action Plan
PLAM	Local Environmental Action Plans
PNA	National Action Program to Combat Drought, Land Degradation and Desertification
RNP	National Forest Administration - Romsilva
SAPARD	Special Accession Program for Agriculture & Rural Development
SGC	Competitive Grant Scheme
SISH	International Society for Horticultural Sciences
SNDD	National Sustainable Development Strategy
SNIF	National Society for Land Development
SWOT	Analysis of Strengths, Weaknesses, Opportunities, Threats
UNCBD	United Nations Convention on Biological Diversity
UE	European Union
UNCCD/CCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework on Climate Change Convention
USAMV	University of Agronomic Sciences and Veterinary Medicine

Country profile

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## ROMANIA country profile

This UNCCD country profile has been provided by Viorel Blujdea – National Focal Point, Forest Research and Management Institute, under coordination of Ministry of Agriculture, Forests and Rural Development

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### ***Biophysical indicators relating to desertification and drought***<sup>1</sup>

#### **1. Climate**

- 1.1. Index of aridity:  $R \geq 0.20$  ( $R=P/EPT$ )
- 1.2. Normal rainfall: nationally it ranges from 350 -1200 mm, but in the area under drought and desertification risks it ranges across 350-550 mm
- 1.3. Rainfall standard deviation: NA

Sub-national areas	Precipitation (mm)
1. plains	350-450
2. hills	550-650
3. mountains	700 -1000

#### **2. Vegetation and land use**

- 2.1. NDVI (normalized difference vegetation index): NA
- 2.2. Vegetation cover (% of total land area): 98 %
- 2.3. Land use (% percent of total land):

Land use		1990 - 1999	2000 - 2004
Arable cropland		39,17	40,4
out of which	Irrigated	2,17	4,8
	Rainfed	37,00	35,6
Pasture land		29,73	22,8
Forest and woodlands		26,20	24,2
Other lands (roads, constructions, wetlands, rocky areas, etc)		9,90	12,6

- 2.4. Surface albedo<sup>2</sup>: NA

#### **3. Water resources**

- 3.1. Fresh water availability (million m<sup>3</sup>): 39 960.0 mil m<sup>3</sup>/year
- 3.2. Fresh water resources per capita (m<sup>3</sup>): 1902 m<sup>3</sup>
- 3.3. Agricultural water use (million m<sup>3</sup>): NA
- 3.4. Industrial water use (million m<sup>3</sup>): NA

#### **4. Energy**

##### Consumption

- 4.1. Energy use per capita (kg oil equivalent): 1,674 tones of oil equivalent /inhabitant
- 4.2. Agricultural energy use per hectare (millions of BTU): NA

##### Production

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<sup>1</sup> Some Indicators are provided according the Annual Statistical Report 2004 of the National Institute of Statstics of Romania

4.3. Energy from renewables (excluding combustible renewables and waste, % of total supply): 6,25 % (it includes non-conventional, hydro-electrical and nuclear sources)

Renewables - Consumption by sector

4.4. Industry (% of total renewable consumption): NA

4.5. Residential (% of total renewable consumption): NA

4.6. Agriculture (% of total renewable consumption): NA

**5. Types of land degradation**

(Data according the National Strategy for Desertification Combat, Ministry of Waters, Forests and Environment Protection, 2000)

Nr.crt	Degradation type	Location	Area	
			10 <sup>3</sup> ha	% from total country area
1	Water erosion	Hilly and table land region, peri-Carpathian hills	6 300 (out of which 1 376 gulling)	26.4
2	Wind erosion	Sandy areas in Romanian plain and Danube delta	378	1.6
3	Silting/colmatation	Inland river flood plains, Danube flood plain and Danube Delta	950	4
4	Soil compaction	Agriculture lands	1 344	5.6
5	Crusting & sealing	All agricultural lands on silty, loamy and clayey soils	2 300	9.6
6	Aridization	Locally in the Danube flood plain	362	1.5
7	Salinization	Eastern Romanian Flood Plain, Western Plain, Moldavia Tableland	614	2.6
8	Loss of soil fertility by organic matter and nutrient depletion	Eastern Romania Danube Plain, Dobrogea, Southern Part of the Western Romanian Danube Plain	3 342	14.1
9	Acidification	Agricultural land from the external part of the forestry zone	841	3.5
10	Land without natural vegetation	Rocky, sand, alpine peaks	141	0.6

(In the table above some type of land degradation may overlap, as there are no available separate statistics)

**6. Rehabilitation**

<b>Land under rehabilitation</b>	1990 - 1999	2000 - 2003
Rehabilitation of degraded crop land (km <sup>2</sup> )	30	50
Rehabilitation of degraded rangeland (km <sup>2</sup> )	NA	NA
Rehabilitation of degraded lands by afforestation (km <sup>2</sup> )	10	35

***Socio-economic indicators related to desertification and drought***

**7. People and economy**

7.1. Population: 21,623,80, out of which in urban 53,3 % and in rural 46,7 %.

7.2. Population growth (annual %): -1,3 % in urban and - 4,3 % in rural areas.

7.3. Life expectancy: 67,6 years for males and 74,9 for females.

7.4. Infant mortality rate (per 1,000 live births) is 6,1 % in urban and 6,3 % in rural.

7.5. GDP per capita (current US\$): 7000 USD

7.6. GNI per capita (current US\$): 395 USD (gross salary income per capita)

7.7. National poverty rate (% of population): 25%

- 7.8. Crop production (thou tons): 12964,4  
7.9. Livestock production (thou heads): 2897

### **8. Human development**

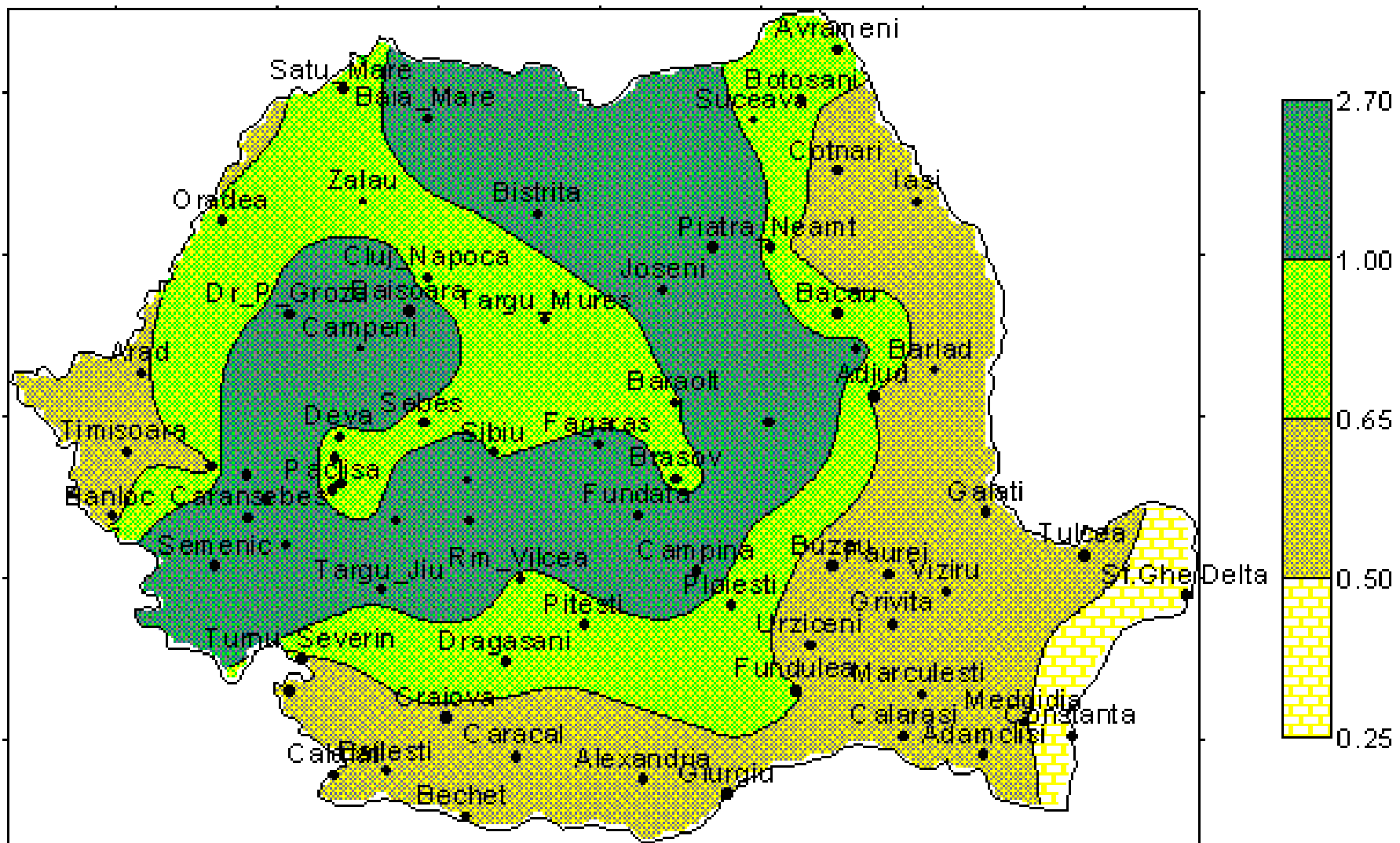
- 8.1. Primary education completion rate (% age group): 47,9  
8.2. Number of women in rural development (total number): 11000 (no. of women involved in teaching activity in rural areas)  
8.3. Unemployment (% of total): 6,1  
8.4. Youth unemployment rate (age 15-24): 28 %  
8.5. Illiteracy total (% age 15 and above): NA (likely less than 3 %)  
8.6. Illiteracy male (% age 15 and above): NA  
8.7. Illiteracy female (% age 15 and above): NA

### **9. Science and technology**

- 9.1. Number of scientific institutions engaged in desertification-related works: 30 (universities, research institutions, private companies, institutes of Romanian Academy and Agricultural and Forest Academy)



Index of aridity map of Romania (P/EPT, P=precipitation, PET=potential evapotranspiration)



## Romania 3<sup>rd</sup> National Report to UNCCD

### *Summary*

#### **NATIONAL STRATEGIES AND PRIORITIES ESTABLISHED WITHIN THE FRAMEWORK FOR SUSTAINABLE DEVELOPMENT PLANS AND/OR POLICIES**

Since Romania's political shift in 1990, ongoing political, economical and social changes are supported by a number of national strategies, plans and programs which sometimes are ambitious and overlapping in scopes, but as a general rule they all are approaching the conciliation of economical development and social needs with environment protection, and recognizes the need of conservation and sustainable management of natural resources, while a current reform of the public administration is implemented. Main national approaches relevant for drought, land degradation and desertification, sometimes within larger frames of development, agriculture, forestry, land use policies and other framework, are: National Sustainable Development Strategy, Program for the implementation of National Plan for Poverty Combat and the Promotion of Social Inclusion, National Program for Agriculture and Rural Development, National Development Plan 2007-2013, National Program for Environmental Protection (2000), National Action Plan for Environmental Protection, Regional Environmental Action Plans and Local Environmental Action Plans, National Strategy on the Flooding Risk Management, 2005, National program for the rehabilitation of pastures for 2005-2008, Policy and strategy of development of forestry sector in Romania (2001-2010). National Strategy and the Action Program to Combat Drought, Land Degradation and Desertification (NAP) is the strategic national document that states the issues and dimension of drought, land degradation and desertification in Romania. It was elaborated in 2000 and approved at the time at ministerial level. The document reveals the issue and necessity to systematic approach of drought and land degradation phenomena at national level. NAP was organized in several axis, that comprise several targeted actions needed to enhance the implementation of the Convention: *legislation improvement; institutional development; human resources; development of the scientific basis for research, planning and information; rural development and landscape reorganization in the areas under risk of desertification; land degradation and droughts*. NAP has a very limited participatory component in its preparation, and currently there are discussions on the need to revisit it and adapt to current development stage of Romania. NAP objectives are approached by sectorial projects of different concerned sectors of activity: forestry, land improvement, agriculture, livestock rising, pasture improvement, etc. Limited coordination have happened in its implementation as authorities and implementing agencies have been in a permanent restructuring process, but its objectives are mainstreamed within different consequent national strategies and plans.

#### **INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION, INCLUDING LEGISLATIVE AND INSTITUTIONAL FRAMEWORKS OR ARRANGEMENTS, LINKAGES AND SYNERGIES WITH OTHER ENVIRONMENTAL CONVENTIONS AND, AS APPROPRIATE, WITH NATIONAL DEVELOPMENT STRATEGIES**

A *National Committee to Combat Drought, Land Degradation and Desertification* is established as a consultative body under the authority of the Ministry of Agriculture, Forests and Rural Development. It is lead by the Minister of Agriculture, Forests and Rural Development and vice-chaired by representatives of other ministries. Recently, toward ensuring the coherency of public policies, Government established 10 Permanent Interministerial Councils and a Council for Strategic Planning under the Public Policy Unit of the General Secretariat of the

Government, as one of these councils includes the National Committee as a specific body dealing with drought and land degradation. Key tasks of the National Committee are coordination of the elaboration and implementation of the National Strategy to Combat Drought, Land Degradation and Desertification and mainstream its objectives into the National Strategy for Sustainable Development and National Development Program; coordinate the implementation of the National Action Program (NAP); analyze the necessity for programs and projects of research and development; analyze the opportunity for regional or international cooperation; update and submit the strategy and national action program to the Government for approval, by MAFRD, and identify and mobilize relevant funding for implementation; coordinate the elaboration of procedures for the monitoring of NAP implementation; initiate public awareness campaign and report to the Government on the stage of the implementation of relevant activities.

*Institutional responsibility* for UNCCD implementation at national level belongs to the Department/Secretariat of State for Forests within the Ministry of Agriculture, Forests and Rural Development. National Focal Point of the Convention is ensured by the Technical Secretariat of the National Committee. Institutional framework for the implementation of the convention is mainly ensured by Ministry of Agriculture, Forests and Rural Development that is responsible at national level with policy elaboration and application of the strategy and government program in the field of rural development, forestry, land improvement, soil conservation and property consolidation. Within the territory there are deconcentrated / decentralized units in the subordination of the ministry, either at regional or county levels which are in the services of county prefectures. Ministry of Environment and Waters Management is the authority responsible at national level with the policies and strategies in the field of environment protection and waters management and it fulfills a trans-sectorial role in the economic and social development of the country.

*Secondary legislation* refers to governmental decisions on the establishment of National Committee and the composition of the National Committee. National legislation is very comprehensive, even there are no specific articles referring to these issues, but they are fully applicable to concerned issues: establishment of agricultural cooperative farms, establishes the Land Improvement Fund, establishment of National System of Protection Forest Belts, Land Improvement Infrastructure, terms used in the legislation (definition of rural space, terms of reference for integrated system for administration and control, etc), clarification on land properties, domestic animal husbandry, support to young living in rural areas, fruit trees and orchards, regime of production of vegetables, organization of grapes and vine production, cadastre and estate records and the regime on the circulation of land properties, regulation for establishing and functioning of the agricultural markets, food safety, rules for the financial support in agriculture and forestry, civil protection in case of natural disasters, compensation and emergency aid in case of calamities for agricultural crops, agricultural credit, regulation of good and production insurance system, water laws, potable water quality supplied for population use, mechanisms for consolidation of small land parcels, exoneration of judiciary taxes and fiscal stamp, laws on educational, health and juridical assistance in rural areas.

Almost all important MEAs have been ratified by Romania. MEAs contain *requirements that are synergistically approached* by institutional, legal, educational, financial tools, instruments or resources, often relevant for drought, land degradation and desertification issues and approach. A thorough assessment of both thematic as well as capacity cross cutting needs for the implementation of the Rio Convention at national level has been achieved in the UNDP-GEF supported National Capacity Self-Assessment, carried out over 2004-2005. The NCSA Final Report contains capacity development Action Plans for each convention and a Joint Action Plan for the implementation of the Rio Conventions, specifying 25 priority objectives and actions. The Thematic Report concerning the implementation of the UNCCD,

developed in the first phase of the NCSA identified major constraints hindering the fulfillment of obligations assumed under Convention. On ground synergistic projects occur in the field of afforestation, forest belt establishment, ecological and biological agriculture, production of certified agricultural food, process of certification of forestry, managing the conflicts, ensured by applying national legislation and expert's vision.

Drought occurrence in Balkans and South East Europe is a recurrent phenomenon that creates serious development problems, especially in rural areas of the region. Noting this situation, the UNCCD Annex V countries in the region, facilitated by the Europe Unit of UNCCD Secretariat, initiated formal discussion for the establishment of a network and a *center with the task to ensure preparedness, monitoring and management of drought in the region*. Center will be hosted by a national meteorological service in the region, as decided by the countries participating in the network in a bid of current year.

In the Annex V of UNCCD, on the issue of scientific cooperation/networking the Forest Research and Management Institute from Romania was selected to play a key role as the *host institution* for the development of regional cooperation in the area of reforestation, afforestation and tree plantation in affected areas. Afterwards, it was established the network, entitled "*Afforestation in temperate zones affected by drought*", with the main objectives to create a communication and sharing experience platform and to share information and database on management and technical issues related to afforestation/ reforestation/ revegetation / plantation in affected areas.

A high number of research and development institutions are currently active in solving sectorial issues in different other field related to drought, land degradation and desertification. Although, despite the apparent complexity and potential of research sector, most of the institutions suffer lack of funds, personnel and updated equipments, as there is low capacity to adapt to emerging market economy and access funds in open competition. Regarding international cooperation there is no a systematic scientific cooperation in the field of drought, land degradation and desertification, even at project level the cooperation is weak.

#### **PARTICIPATORY PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF ACTION PROGRAM, PARTICULARLY PROCESSES INVOLVING CIVIL SOCIETY, NON-GOVERNMENTAL ORGANIZATIONS AND COMMUNITY-BASED ORGANIZATIONS**

Capacity of National Committee, as a whole or by its members, in *influencing and mainstream of UNCCD implementation objectives is based* on large involvement in the elaboration/discussions/forums/negotiations on strategically operational plans, environmental national and local plans, economical development strategies, national development plan and as reviewers of the projects proposals. Regional structure and local authorities are low involved in drafting and implementation of strategies and projects proposals or implementation, even this situation is changing. Educational efforts, awareness actions and improved legislation are made to increase the communication between local and national stakeholders and actors, and develop partnerships.

According the constitution the right of citizens to any *public information* may not be restricted, consequently public authority, based on their competencies are obliged to correctly inform the citizens on public business and on business of personal interest

*Awareness* at national or local levels are achieved by organizing World Day to Combat Desertification (as 1 day event, and benefit from inputs from invited stakeholders and policy makers at national level), scientific and technical meetings, professional meetings. Awareness actions are well accounted at national level, such as annual ceremony of "Planting trees" within the "Forest's Month", national TV channel broadcasts, TV contest "Together for the Nature", awareness for nature

conservation at schools and high schools, magazines and newspaper, mass media (radio and TV) broadcasts and talk shows and professional shows.

*Private sector* is considered as a strategic partner in the approach of structural changes in rural areas of the country, and public private partnership is considered as one viable way to involve private management in public services. Toward the promotion of public-private partnerships the legislative relevant framework has been adopted and harmonized, even guides for best practices on private public partnerships are promoted.

Although the *equality of chances between men and women* is stated *de iure* in Romanian legislation, civil society is signaling *de facto* non compliance with.

Alimentary and alcoholic beverages products originating in *traditions of rural life*, that may be identified as geographical denomination are protected and recognized in Romania by law, while few of them are identified as originating in drought areas or areas under aridization. Technologies for soil preparation, crop irrigation, harvesting and processing of agricultural, orchard and vineyard products are not inventoried, but regions or zones of the countries are recognized for their specific approach.

#### **CONSULTATIVE PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF NATIONAL ACTION PROGRAMMES AND PARTNERSHIP AGREEMENTS WITH DEVELOPED COUNTRY PARTIES AND OTHER INTERESTED ENTITIES, PARTICULARLY MOBILIZATION AND COORDINATION OF BOTH DOMESTIC AND INTERNATIONAL RESOURCES**

In its way to the European Integration, Romania engaged to fully comply EU standards in different fields, so called *aquis communautaire*. To aid Romania (and other candidate countries), several pre-accession programs target economical reconstruction and agriculture & rural development.

Ministry of Agriculture, Forests and Rural Development is developing a series of projects relevant for drought, land degradation and desertification combat, with international organizations or on bilateral basis (World Bank, United Nations Development Program, Food and Agriculture Organization, International Fund for Agriculture Development, Netherlands, Spain, France, Switzerland, Belgium, Germany, ICE, OCEMN, OECD, IPGRI, OIZ, ICC, CSI, OIE, FEZ, ISTA, SISH, ICID, OIV, etc).

#### **MEASURES TAKEN OR PLANNED WITHIN THE FRAMEWORK OF NATIONAL ACTION PROGRAM, INCLUDING MEASURES TO IMPROVE THE ECONOMIC ENVIRONMENT, TO CONSERVE NATURAL RESOURCES AND PROMOTE THEIR SUSTAINABLE USE, TO REHABILITATE DEGRADED LAND, TO ENHANCE KNOWLEDGE ON DESERTIFICATION AND ITS CONTROL, AND TO MONITOR AND ASSESS DESERTIFICATION AND DROUGHT**

In Romania, issues related to drought and land degradation (D & LD) have been recognized and represents a continuous concern for decades. Over time there have been established *several committees and bodies responsible by D & LD issues*, whose impact on regional or local level have been more or less visible. Many of these committees and commissions created over time had reduced impact, as they have been established or activated under crisis situation, without any strategic approach or vision.

National Action Program for combat Drought, Land degradation and desertification was drafted in 2000 and it is endeavored its revise (without any precise deadline), based on new economical and social situation of Romania, although relevant actions are already included in operational sectorial plans, integrated with measures to be approached by agriculture, forestry and rural development.

There is no any major improvement on *renewable energy* sources in the country, even high national potential is recognized for windmills and solar panels. Legislation, institutional arrangements, associated environmental tools on renewable

energy resources, already in place, encourages and stimulates the use and production of woody biomass for energy production.

In Romania, *irrigation* is key in order to maintain a continuous agricultural production because of high variable natural conditions. The main issues in the irrigation sector are the communist legacy of over-investment in irrigation infrastructure, uneconomic irrigation schemes (based on subsidized electricity) designed to serve large state farms and actual lack of an effective institutional framework. The demand for irrigation declined sharply in the early 1990s, as the water supply varied significantly. Nevertheless, the Government has provided irrigation subsidies to farmers.

At national level there is a traditional activity of *vegetable improving and selection (races of different crops, new crops* - including GMO with specific restriction) and *improving and promoting technologies* to cope with drought like: agricultural technologies, systems and agro-technical methods for improved water use efficiency and mitigation of drought impacts and elaboration of integrated zonal systems for efficient use of limited water resources by irrigation of main crops.

*Degradation* occurs over several types of land uses and ecosystems because of both *intensive land use and poor management practices* or even land abandonment, processes much accentuated as climate change occur on the driest areas of the country. Large concern on the promotion of the more effective means and ways to prevent and combat land degradation are for almost half of century in the attention of agriculturists, foresters and other specialists, as over time appropriate guidelines and recommendations were provided for different fields of economic activity. Current EU accessing of Romania brings enhanced integration and sustainable approach of the activities related to land use management.

*National legislative framework* is very comprehensive and it covers all issues related to natural resources use and their sustainable management. These regulations fully apply for the areas affected by drought and land degradation. Such laws are: land improvement/rehabilitation; forest belts establishment; orchards, vegetables, wine and vinery, livestock, protected areas, forest code, support for people/communities in case of natural hazards, etc.

In dry regions of the country the percent of *forests* is under 10 %. These forests are under pressure of natural phenomena (insect outbreaks, decline and drought), high request for fuel wood and sometimes illegal cutting, non efficient use of quality wood, shift from natural to artificial stands, other human pressures. Actual authorities are doing tremendous efforts to ensure proper administration and management of these forests. Because of large areas of degraded land, available agricultural land of private owners and favorable legislation, it is acknowledged an increase of areas planted with forest trees.

Most of the *pastures* situated in the dry areas are very low productive and degraded, and they are at all or very poor managed, overgrazed and not maintained. Currently, financing of the pasture rehabilitation is achieved by sustainable economic and fiscal tools, what ensure a certain pace of yearly rehabilitated area. Large shares of private grazing pasture, low owner financial capacity, limited advisory and awareness and lack of incentives creates serious issues related to sustainable management of pasture in Romania, especially in dry areas of the country.

*Rural development* is a concept that is recently introduced into Romanian policy and practice, and it hardly replaces the centralization ruling and thinking, consequently there are serious needs and efforts for the structural change of communities and individual people, practices for production and processing. The change process is very difficult as population is aged, less educated and open to new, concerned with daily troubles and minimal life needs, based mostly on agriculture and limited type of crops. Change of approach in rural areas and promotion of rural development based on farms and services improvement is ensured by a large number of projects, but from far the most powerful driver of change are EU pre-

accession instruments (like: SAPARD) that place substantial funds on the change of rural approach and promote sustainable rural models based on modernizing of farms and services, an actions that will continue after adhering due to structural and cohesions funds.

*Educational programs* at all levels focuses on the development of integrated approaches of the actions toward the sustainable management. On the other side, awareness of local authorities and people, especially in rural areas, is very poor. Training of professionals from institutions or authorities is limited.

*Agriculture* is under continuous restructuring as several parallel processes occur: finishing of property restoration on lands (agricultural, forests, etc); improvement of general cadastre; ongoing process of transformation of former centralized and large areas agriculture to small medium size flexible farms/farming systems; change of subsistence agriculture to market oriented one; implementation of principles of Common Agricultural Policy, ensure legal and juridical assistance for landowners, offer of affordable bank credits and insurance systems in rural. National legislation (within the EU integration process) encourages the aggregation of lands; association of owners for better resource management; constructing of products chains; use of human or natural alternative resources. Machineries and new technologies (for irrigation, cropping, weeding, fertilizing, very productive crops, etc) are available on domestic market.

New *guides for good practical guidelines* in agriculture and other land uses and resources were recently promoted (these introduce environmental approach of the crop management), as others are expected. Research projects funded in the National Program for Research, Development and Innovation finalize with *technical guidelines* that must be approved by the partner institutions or homologated by the national competent relevant authority, and further applied in practice.

*Technical staff* and services to fight against land degradation are covered by private and state organizations, or even individual persons, but certified and attested by a specific Attesting Commission of the Ministry of Agriculture.

National Meteorological Administration develops the *Operational Agrometeorological Program* which includes monitoring of agro meteorological parameters, drawing up of Agrometeorological Bulletins and disseminates information/ technical recommendations to users, farmers, agricultural base companies, other publications, mass media. National Institute of Statistics collects and provides *statistical data* regarding the assessment of evolution of general situation regarding land degradation. Currently, INS is implementing a new system, Structural Agricultural Investigation, which will offer statistical data regarding farms and collective farms (general information, land use, income and support, irrigation and fertilization, livestock, number of employees etc.), correlated with the UE investigation system. *National system for the monitoring of the forest vegetation and a system for soil-land monitoring* where basic observation are performed and intensive observation in specific areas (eroded lands, conservation areas).

#### **FINANCIAL TOOLS AND MECHANISMS**

Several instruments finance works related to improvement of degraded lands, as: a) fund for improvement of land, c) allocations from the local budget of the communes, towns, municipality and districts, d) sponsor's trading companies, e) external financial non-reimbursable sources or external loans on the long period, f) voluntary contributions of the natural or legal persons interested in land improvement works, g) Forests Conservation and Regeneration Fund, h) legal duties owed by natural and legal persons, culpable of the soil degradation, i) Fund for the crediting of the investments in agriculture, j) legislative support for Agricultural Farm establishment, k) adoption of the list the species and the financial aid for domestic production of certified origin; l) annual aid to support the soil works and payment of diesel for soil works; k) support of producers from the state budget to purchase new agricultural machinery; l) subsidies, l) agricultural life annuity, m) Environment Fund.

## CHAPTER 1. NATIONAL STRATEGIES AND PRIORITIES ESTABLISHED WITHIN THE FRAMEWORK FOR SUSTAINABLE DEVELOPMENT PLANS AND/OR POLICIES

**National Sustainable Development Strategy (NSSD)**, issued in 1999, set the principles, objectives and priorities for the sustainable development of the country. It is the main national document that approaches the reconciliation of the economic and social development needs with environment protection. On the short run it is envisaged creation of a support system, favorable to sustainable development, aiming the following priorities: *public health, education, economic growth, and conservation of energy resource* sustained by the complex and interdisciplinary activity for the *protection of the environment*. Over communist time, especially between 1960 and 1989, there was an increase of cultivable land, especially arable land, in order to increase the national agricultural production. To this purpose, land with high degradable potential was introduced into cultivated circuit (together with forest lands, pastures and wet areas). As a consequence, after political shift in 1990, the agricultural surface decreased by 400,000 hectares and the arable surface by 700,000 ha between 1989 and 2004, which is caused by to the partial removal of less productive land from agricultural use. However, other less productive areas are still being cultivated, although their soil quality is low and they have no potential for efficient agriculture. Currently, there are 14 711 000 hectares of agricultural land (0.65 ha/capita), of which 9,421,000 ha are arable (0.41 ha/capita), and 6,779,000 ha are woodland (0.3 ha/capita). At the same time, it must be noted that approximately 80% of agricultural and arable land, as well as a significant amount of forests, are affected by at least one damaging process or phenomenon, or by limiting and restricting factors. Overall it is estimated that the agricultural production diminishes by approximately 20 % annually. For the restoration of the quality of agricultural soils, as well as for the ecological reconstruction of soils situated in highly eroded areas, funds amounting to \$25-30 billion would be necessary, phased over 15-25 years. Based on this situation, related to land management, NSSD points several major strategic objectives and measures for the protection, improvement and sustainable use of land, built on the philosophy of combining of its ecological functioning and management approach, following policies that ensure the integration of socio-economic principles with environmental concerns, so that they can be dealt with simultaneously: bioproductivity, food security, protection of soil quality, economic reliability and social accessibility. At national level it is endeavored to *ensure the integrity of the country's forests, restocking of the forest fund* (to the optimum level of 35% of the country's territory (with 10% in the plains area, by afforestation of degraded and abandoned agricultural lands (65,000 ha until 2010 and 300,000 ha until 2020); creation of protective forest belts and anti-erosion shelter belts (2,000 km until 2010 and 10,000 km until 2020); creation of green belts around cities and towns, as well as watercourse regulation in the case of streams (2,500 km of stream network until 2020), *ecological rebuilding of forests structurally damaged* by natural and human-related factors; this will include forest re-naturalization of some areas in the along the course of the Danube and of some interior rivers. This will be extended gradually to almost 20,000 hectares annually during the period 2000-2010 and to 30,000 hectares annually during the period 2010-2020, and *limitation of the volume of annual wood exploitation to the forests capacity level*. A different and very complex issue is the sustainable management of the forests that were or will be the object of property restoration, whatever individuals or companies. In this light, improvement and long-term maintaining of farms and woodland as well as prevention of erosion and degradation are the main objectives of the strategy regarding the protection, improvement and sustainable use of land in Romania, goals that are assumed to be



achieved if the whole range of factors: natural, social, economic, and cultural factors are considered, at national and local level.

A key process in the framework of sustainable development of the country is that Romania is currently going through the reform of the public administration, which is implemented by **Strategy on Public Administration Reform** (2004 – 2006). As requested by need of a both modern administration to sustain the democratic process and European Integration the priorities are reform of public function (to create a stable and politically neutral public staff of ministries, agencies and other governmental organisms); reform of local public administration by the continuation of decentralization and deconcentration of public services (to improve the management and quality of public services at local level and ensure coherent and shared responsibilities) and improvement of the process of public policy formulation (by creation of an improved system of coordination and management of government's structures).

The Government of Romania adopted the Program for the implementation of **National Plan for Poverty Combat and the Promotion of Social Inclusion (PNAinc)**, revised for the biennium 2006-2008. It establishes the framework to reach of the strategic targets committed through the Government Program and by the provisions of the Joint Inclusion Memorandum, signed by Romania and European Commission in 2005, with the target to combat poverty and social marginalization, as well as the promotion of social inclusion. Key contribution of this program for the improvement of the actual system consists in the promotion of an integrated approach of the measures to combat poverty and social exclusion and in the implementation of a monitoring system of social programs by the relevant institutions both at national and local levels. For the moment being main social issue is related to low living standard of almost fifth of the population, while important shares of the population are affected by extreme poverty or exclusion from fundamental rights. The most affected by the decrease of living standards are agriculturists, jobless and retired persons. The most vulnerable categories are families with membership superior to 5 and "roma" ethnics, which show increased risks to poverty despite the general improving living conditions over the country. As comparison between the two residential environments, there are considerable differences for living standards, as higher poverty rate characterize the rural area, compared to urban area. Regarding the occupancy, job dynamics is characterized by the increase share of the inactive population, decrease of the occupancy rate, increase of the share of informal sector and disguise unemployment. In the field of education, an alarming fact is the increase of the number of children that do not enroll and of those that abandon the school in early stages, a phenomenon marked in rural areas. Although the relative good status of general health status, in Romania it is recorded still high values of some indicators, like infantile mortality and pulmonary disease, as there are some population categories, especially in rural areas that have no access to health services. Regarding territorial distribution of poverty and social exclusion, estimation of the poverty rate of communes and towns mark a high heterogeneity of settlements, as the living standard largely varies over the development regions of the country. Beyond the critical problems in rural areas, in the cities there are intraurban red spots of chronic poverty, featured by low living standards and precarious access to services.

**National Program for Agriculture and Rural Development (PNADR)** is the main tool for implementing the "acquis communautaire" in the field of agriculture and rural development, over the pre accession phase to European Union of Romania. Several priorities and operational objectives were identified, with a focus on adaptation to new markets and sustainability of the rural economy, that are applicable at communal/village levels (NUTS 5). Financing of integrated projects in rural areas is intended to create an enabling environment for enhanced entrepreneurial behavior and environmentally sound development toward the

promotion of competitive products and avoid post adhering negative effects caused by inappropriate preparation to face common market competition in the economical, institutional and legislative fields. The EC financial contribution to implement the PNADR in Romania is SAPARD (Special Pre-Accession Program for Agriculture and Rural Development). It contains several chapters that specifically address different priorities, as: improvement of processing and marketing of the agricultural and fishery products; control of food quality; veterinary and phyto-sanitary control; improvement of the infrastructure for rural and agriculture development; development of rural economy and human resources.

**National Development Plan 2007-2013 (NDP)** identifies the country's public investment priorities related to cohesion with European economic and social policies, and defines multi-annual strategic planning and financial programming. It sets out core interrelated objectives for sustainable development of the country on medium term: economic well-being, social development and environment protection. The plan aims to strengthen environment protection and reduce negative impacts caused by the development on the environment in ways that are entirely consistent with Romania's Rio commitments. The underlying principles to be respected include: prevention, the precautionary approach, the "polluter pays", the integration principle and the proximity principle. The strategic framework for environmental sustainability is based on the following approaches: sustainable development of natural values and improvement of environment quality; integration of the environment policies into regional and sectorial policies; reduction of the differences among regions and improved public access to public services; protection and conservation of natural legacy, including biodiversity conservation and promotion of education in the field of environment protection and informational flows. Within the NDP there was developed National Strategic Reference Framework for the period 2007-2013 (NSRF) which aims to strengthen Romania's Economic and Social Cohesion and Regional Policies and link them to European Community policies for economic growth and jobs creation. The NSRF is a strategic document which is further implemented through Operational Programs (OPs), several of which have implications for environment and natural resources management in the country. Regional Coordinating Committees will be established in the eight Development Regions to help coordinate these Operational Programs. Key among the OPs is the Operational Sectorial Program for Environment Protection, which is coordinated by a management authority inside the MEWM. It has among the strategic objectives: achievement the objectives related to climate change; sustained management of water resources; assurance of the soil quality; prevention and diminishing of the risks, conservation and rehabilitation of natural resources, investments in sustainable use of the environment, clean technologies, environmental education and citizen involvement in decision-making. Operational Sectorial Program for Rural Economy Development and increase of productivity in the agricultural field is coordinated by a management authority from MAPDR. Among the strategic objectives there are: improvement of life quality in rural areas trough diversification of rural economy; sustainable economic development of agricultural farms and forest exploitations; increasing of the competitive capacity of forest and agricultural sectors and update of their offer to the market; promotion of local initiatives trough encouraging the actions like success projects; sustainable fishing and development of aquacultures.

**National Program for Environmental Protection (2000)**, is an integral part of the Romanian strategy for economic development in the medium term (chapter VI) that addresses environmental protection, territorial planning and regional development. Romania will harmonize its environmental policies and practices with European Union environmental "acquis communautaire" through adopting the following measures, inter alia: a) protection and preservation of nature, biological diversity and the sustainable use of its elements; development and good management of a national network of protected areas in line with the strategies,

policies and practices at European and international levels; a technical program for evaluating financing costs incurred by reducing greenhouse gas emissions, in accordance with the provisions of the UNFCCC and Kyoto protocol; b) enforcement of environmental legislation (law no. 137/1995), including adopting a system of norms, standards and regulations in line with the EU requirements; c) decentralization of the institutional system; d) setting up the legal and institutional framework to stimulate dialogue between the authorities and civil society on sustainable development strategies, policies and programs; e) building institutional capacity to establish partnerships between environmental institutions in Romania and those in the European Union and international organizations; f) sustainable management of water resources, in accordance with the provisions of the Dublin conference, the Rio de Janeiro summit (1992) and the Johannesburg WSSD (2002); g) ensuring the integrity of national forest areas, including addressing the shift in ownership and management by enforcing through legal and institutional regulations; and i) implementing the national program for soil management, including the fight against soil erosion and sustainable use of soil resources.

The Ministry of Agriculture, Forests, Waters and Environment prepared in 2003 the **National Action Plan for Environmental Protection (NEAP)** under the umbrella of the Regional Environmental Reconstruction Program (REReP), the main environmental component of the Stability Pact for South Eastern Europe. 2003's revised version presents priority projects needed to address specific issues related to EU Directives. Among priority measures to be taken at national level are waste management, waters sustainable management, air quality improvement and protection and conservation of biodiversity and ecological reconstruction. Practically it includes a number of specific projects under different fields but only a few of these projects are being implemented with support from various sources.

**Regional Environmental Action Plans (REAPs)** and Local Environmental Action Plans (LEAPs) identify priority medium and long-term actions and projects which can then be funded from different sources. Three of eight Regional Environmental Protection Agencies have prepared REAPs to date. 31 Local Environmental Action Plans (LEAPs) have been completed by Local Environmental Protection Agencies for the county level and others are underway. The proposed actions in these plans tend to address specific sectorial issues and are rarely integrated with other environmental issues and sectors. Also, there has been only uneven implementation of these plans and projects, due in part to lack of technical and managerial expertise in project implementation and institutional changing. Since the process of identifying actions is on-going and includes periodic updating of the evaluation criteria for project choice, and there will be increased funding associated with EU accession, there are opportunities to promote the development of cross-cutting projects to address multiple Rio conventions themes.

**National Strategy on the Flooding Risk Management, 2005**, promotes the measures for the prevention, protection and diminishing the effects of floods. Among the prevention measures it is mentioned the necessity of improvement of land management and promotion of adequate use of landscape scales of agricultural and forest lands.

**National program for the rehabilitation of pastures for 2005-2008** issued by the MAFRD in 2004, describe the actual status of pastures and establishes the targets for the improvement of the pastoral fund of the country by appropriate measures and actions at local and national level, according the ecological regions. At national level the pastures covers a total of 4.9 mil. ha. Limitative factors of the biological productivity of pastures are erosion and landslides (18 %), soil acidity (27 %), salinity (5 %) and sands (1 %). Steppe and sylvo- steppe pastures need like 350 000 ha of rehabilitation, and specific technological measures and the cost are provisioned in detail for each county.

Key objective of the **Policy and strategy of development of forestry sector in Romania** (2001-2010) is the development of the forestry sector as to enhance its contribution to life quality, based on sustainable development of the forests, while specific objectives are a) modernizing of institutional framework for the unitary and supporting implementation of the strategy of forest sector development; b) development of the legislation framework of the forestry sector; c) encouraging of private forest owners to associate, as well as commercial entities in harvesting, transport and processing of wood, in employer or professional organizations. Relevant directions within the strategy are: 1) *ensuring the integrity and the development of the forest fund, as well as the expanding the land covered by forest vegetation* (Support with technical advice and with seedling for expanding the area poor in forests; granting of financial or material compensation, at the request of the owners, for non returning of the provisioned income caused by restrictions generated by the following of the forest regime application on protected areas or necessity to protect objectives of public interest; expanding the forests and other type of forest vegetation, inclusive on degraded lands, outside the forest fund; support for establishment of forest plantations taken out from crop circulation, complying with sustainable agriculture principles; support for the establishment of forest belts, trees line and other types of forest plantations, outside the forest fund), 2) *ensuring the stability and increase of functional efficiency of forest ecosystems* (optimizing of afforestation formulas according the policy of species promotion and change of the environment; selection and promotion of biotypes tolerant to various adverse factors and their extended use in forest regeneration works; protection of forest soils; elaboration of technical norms to compute the total economic value of the forest par rapport a attributed forest functions; implementation of the system of economic valuation of entire forest fund and the forest/wood lands, at zone and regional level), 3) *ecological restoration of not suitable forests from ecological and economical point of view* (ecological restoration of the forests affected by damaging factors or with degraded structure), 4) *support of forest land holders for sustainable development of the forests* (promote facilities for association of forest land owners; ensuring the free of charge technical assistance for private forest owners; promotion of facilities and incentives for land owners in the way to produce seedlings and afforestation of available lands; identification of international sources of funding), 5) *awareness of general public, forest land owners, political and decision making segment, on the role and the importance of forest fund patrimony*, 6) *consolidation of traditional markets and approach new markets by high processed products*, 7) *reconsideration and improvement of the education and research toward adaptation of sustainable forest to market economy*.

**National Strategy and the Action Program to Combat Drought, Land Degradation and Desertification (NAP)** is the strategic national document that states the issues and dimension of drought, land degradation and desertification in Romania. It was elaborated in 2000 and approved at the time by the Ministry of Waters, Forests and Environment Protection. The document reveals the issue and necessity to systematic approach of these phenomena at national level. NAP was organized in several axis of actions: *legislation improvement* (legislation improvement concerning the water management, soil protection, degraded land improvement and torrential phenomenon halting; promotion of acts concerning the desertification and drought effects control; development of the insurance system for drought and desertification areas; Improvement of the legislation concerning the planning and management of territory); *institutional development* (establish of the institutions for the implementation of the national strategy and action plan concerning the desertification, land degradation and drought prevention and control; promote the law for the establishment of the Association of Irrigation Water Users (AIWU); extension of the system of Associations of Irrigation Water Users (AIWU ) related to irrigation systems status; development of the soil science and soil testing agencies and of the

forest research units from the areas affected by desertification and land degradation), *human resources* (ensure critical mass of specialists for the implementation of the measures and actions in the action program; permanent informing of the population and authorities on actions to be taken to prevent and fight against desertification, land degradation and drought; development of the partnership between the population and local authorities for a better development of the actions concerning desertification, land degradation and drought prevention and control; NGO involving in execution of some program actions, especially for the information and popularization; setting up of the complementary activities for agriculture and forestry (units for agro-forestry products processing, service units, agro-tourism); *development of the scientific basis for research, planning and information* (setting up of the special research and planning groups for desertification, land degradation and drought prevention and control at the relevant institutes and ensure financial support for their functioning; specific research program; organization of the national information system for desertification, land degradation and drought; elaboration of studies for desertification and land degradation areas; land management planning and elaboration of projects under the national strategy and action program to combat desertification and land degradation, and drought prevent and control), *rural development and landscape reorganization in the areas with risk for desertification, land degradation and drought* (ensuring of the water resources for the development of the affected area; supplement of the present energetic resources using alternative resources of energy (wind-based, solar, biogas) in the suitable areas; improvement of the local climate in order to prevent and control the drought effects; promoting of agricultural techniques for the improvement of the soils properties; maintaining and improving of their productivity potential; prevention and control of the water and wind eroded, as well as other land degradation processes; assessment of the low fertility abandoned lands, degraded pastures improvement in the desertification risk areas and apply rational grazing; yield diversification using new crop species, breeds and hybrids better adapted to drought; conservation and improvement of the biodiversity in the desertification risk areas; desertification monitoring), *rural development and landscape reconstruction in the land degradation risk in humid zones* (anti-erosion management planning of the crop land affected by degradation; prevention and control of the water and wind erosion, land-slide and other land degradation processes; assessment of the abandoned crop lands due to their small fertility; physical and chemical soil properties improvement; degraded pastures improvement and amelioration; cadastral survey and monitoring of the land degradation phenomenon).

NAP has a very limited participatory component in its preparation. It was prepared in the year 2000 by 9 research institutes, and approved by the Ministry of Waters, Forests and Environment Protection. There was no public debate or discussion on it, neither involvement of CBOs or NGOs. Consequently it must be reviewed, negotiated with implementation agencies and most important is to construct it in a bottom up approach.

NAP objectives have been approached by sectorial projects of different concerned sectors of activity: forestry, land improvement, agriculture, livestock rising, pasture improvement, etc. Limited coordination has happened in its implementation as authorities and implementing agencies have been in a permanent restructuring process in the way of transition to market economy and EU integration and harmonization (both processes are almost to the end) as well lack of efficient coordination mechanisms. Low horizontal integration occurs as the NAP was approached in a top down and sectorial approach. Currently, objectives of the NAP have been mainstreamed within different consequent national strategies and plans: forestry strategy and policy, Strategically Operational Plans (a tool for implementing of structural funds of EU, in the accession process), environment plans and climate

change national action plan. Currently it is analyzed the need for the revision of the national action program for drought, land degradation and desertification.

**National Action Plan for Climate Change**, 2006, considers in a synergetic way the need to review the land use policies.

## **CHAPTER 2. INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION, INCLUDING LEGISLATIVE AND INSTITUTIONAL FRAMEWORKS OR ARRANGEMENTS, LINKAGES AND SYNERGIES WITH OTHER ENVIRONMENTAL CONVENTIONS AND, AS APPROPRIATE, WITH NATIONAL DEVELOPMENT STRATEGIES**

### **2.1 NATIONAL COMMITTEE TO COMBAT DROUGHT, LAND DEGRADATION AND DESERTIFICATION**

National Committee to Combat Drought, Land Degradation and Desertification is established by the Governmental Decision 474/2004 (as published in the Official Gazette 337/19.04.2004) as a consultative body under the authority of the Ministry of Agriculture, Forests and Rural Development. It is lead by the Minister of Agriculture, Forests and Rural Development and vice-chaired by representatives of Ministry of Environment and Water Management; Ministry of Administration and Domestic Affairs and the Ministry of Public Finance. It is in charge with the coordination of the activities directed toward the implementation of the UNCCD in Romania. Composition of the National Committee is established by the Ministerial Order 503/ 2005, as each organization is requested to nominate 1 person (Annex 1).

Toward ensuring of the coherency of public policies, Government recently promoted the GD 750/2005 regarding the establishment of 10 Permanent Inter-ministerial Councils and a Council for Strategic Planning under the Public Policy Unit of the General Secretariat of the Government. Permanent Inter-ministerial Council for Agriculture, Rural Development and Environment includes the National Committee as a targeted body to follow the issues related to drought, land degradation and desertification.

Main tasks of the National Committee are to coordinate the elaboration and implementation of the National Strategy to Combat Drought, Land Degradation and Desertification and mainstream its objectives into the National Strategy for Sustainable Development and National Development Program; coordinate the implementation of the National Action Program (NAP); analyze the necessity for programs and projects of research and development on the issue of drought, land degradation and desertification and identify and mobilize relevant funding sources and monitors the implementation, progress and achievements of their results; analyze the opportunity for regional or international cooperation on specific issues and cooperation with other countries toward their implementation, under full harmony with national action programs; update and submit the strategy and National Action Program to the Government for approval, by MAFRD, and identify and mobilize relevant funding sources for their implementation; coordinate the elaboration of procedures for the monitoring of NAP implementation by specific indicators; initiate public awareness campaign on the causes and effect of droughts, land degradation and desertification; report to the Government on the stage of the implementation of NAP.

Committee works are lead by the president or one of its vice-chairs, and it meets regularly twice per year or when it is deemed necessary at the request of the president. Meantime an Executive Bureau (of 11 members, out of which the president – the Minister of Agriculture, Forests and Rural Development, and a vice chair) fulfills extraordinary issues. Management of current works of the National Committee is deserved by a Technical Secretariat, which is jointly ensured by the National Institute of Pedology and Agrochemistry, Forest Research and Management Institute and National Administration of Meteorology.

Cross cutting and multidisciplinary characters of the committee: members of

the National Committee are nominated by the institutions, as the most professional person dealing with drought, land degradation and desertification; National Committee is composed by both political and technical persons (ministries, academic and scientific institutions representative); regional or local administration are not represented at all; civil society or non-governmental organization are not represented in the National Committee, but its rules of function and organization allows their participation. Mode of operations of the National Committee: mailing list, 2 yearly meetings and several meetings of the Executive bureau when members provides the most up to date available information on different relevant issues; a web page is under way to be established within the page of the Ministry of Agriculture, Forests and Rural Development. Funding of the National Committee is ensured by the Ministry of Agriculture, Forests and Rural Development.

## 2.2 INSTITUTIONAL FRAMEWORK FOR THE IMPLEMENTATION OF THE CONVENTION. MEASURES ADOPTED TO STRENGTHEN THE INSTITUTIONS AT LOCAL AND NATIONAL LEVELS

Responsibility for UNCCD implementation at national level is held by the Department/Secretariat of State for Forests within the Ministry of Agriculture, Forests and Rural Development. National Focal Point of the Convention is ensured by the Technical Secretariat of the National Committee, and it is an employed of the Forest Research and Management Institute.

Institutional framework for the implementation of the convention consists in:

*Ministry of Agriculture, Forests and Rural Development* (MAFRD) is the specialized central public administration authority, subordinated to the Government, that is responsible at national level with policy elaboration and application of the strategy and government program in the filed of rural development, forestry, land improvement, soil conservation and property consolidation (among others). It has administrative tasks, as well, over state forests and state owned land, which are ensured by specific agencies.

At *central national level*, under the ministry there are specific compartments that deal with issues relevant for drought, land degradation and desertification, namely: 1) Direction of property consolidation, reform of the structures for exploitation and soils conservation, Compartment for land improvement and soil conservation; 2) Direction of market policies, Compartment for ecological agriculture and other low environment impact production means; 3) Direction of forest management and its Compartment for forest fund and biodiversity conservation; 4) Direction of forest development and property consolidation and its Compartment for ecological reconstruction and forest belts; 5) Direction of monitoring of EU adhering process by Compartment of agricultural statistics. Under the MAFRD authority there are economical units delegated with the administration of state forest (National Forest Administration - Romsilva), land improvement and irrigation services (National Administration of "Imbunatatiri Funciare / Land Improvement" in charge with public related services and National Society "Imbunatatiri Funciare / Land Improvement" in charge with delivery of services for any party). MAFRD coordinates the Academy of Forest and Agricultural Sciences "Gheorghe Ionescu Sisesti", an umbrella for scientific research and extension in agriculture and forestry science. MAFRD administrates the Land Improvement Fund.

*Within the territory* there are deconcentrated / decentralized units in the subordination of the ministry, either at regional level or county levels which are in the services of county prefectures. At *county level*, the Direction of Agriculture and Rural Development (DADR), is a deconcentrated public service that implement the agro-alimentary policies, strategies and programs and it has under subordination units without juridical personality (fito-sanitary unit, unit for domestic animals improvement and reproduction, land improvement units) and coordinates the Office for Agro-

Chemistry and Soil Survey. At *regional level* there are Territorial Inspectorates for Forest Regime and Hunting, in charge with the control and application of the rule of law in the forestry and game/hunt management, while the administration of the forest resources is achieved by Romsilva forest districts, private forest districts and individual persons as owners, based on properties type.

*Ministry of Environment and Waters Management* (MEWM) is the authority responsible at national level with the policies and strategies in the field of environment protection and waters management and it fulfills a trans-sectorial role in the economic and social development of the country.

At central level in the ministry structure there are several directions that have responsibilities in the field of monitoring, conservation, protection, regeneration and developing/strengthen of associated economical tools for soil, sub-soil and biodiversity. For this purposes the ministry has: a) a General Direction for nature conservation, biodiversity, biosecurity, soil and sub-soil, with a Service for soil protection and sub-soil; b) a General Direction for impact assessment, control of pollution and risk management, as well as c) a Direction for environment policy, atmosphere protection and climate change, d) a Direction for the prevention and management of emergency situation created by hydrological and meteorological situations. The tasks of the ministry is implemented at national level by National Agency for Environment Protection which is a public institution, legally established. It achieves its function at territorial level by Regional Environment Protection Agencies and at county level by Local Environmental Protection Agencies.

Under the subordination of the ministry there is the National Guard for Environment, which is a public institution in charge with inspection and control of the implementation at national level of environment and water policy, and it acts as a specialized branch of central public administration in the subordination of the MEWM. It acts at territorial level through 8 regional commissariats (that matches on regions of development). As well under the authority of the Minister there is functioning the National Administration for Meteorology which is a public institution of national interest that must ensure the meteorological protection of the peoples and goods at national level. MEWM has under its authority the Administration of the Environment Fund.

Romania is currently going through a process of decentralization, which would lead to an increase of the local responsibilities in the administration of domestic affairs as well as over the natural resources. The process is managed by the **Ministry of Administration and Domestic Affairs** (MADA) that struggles to promote right legislation to ensure effective empowerment of local administrations as well as the rule of law. This process parallels the full restitution of the properties on land, forests and goods to former owners, which were nationalized by the communist in '50 of last century. *Local administration* is organized into territorial units such as *county*, *towns* and *communes* (comprising 2-5 villages). While county is headed by a National Government-appointed Prefect and elected County Council, the towns and communes are headed by elected local council and a mayor. Prefectures are administrative bodies that coordinate the delivery of national ministry services at the county level and check the legality of legislation proposed by county and local councils. They are also responsible for ensuring local implementation of central government decisions, including those on environment and natural resources.

Due to European Union integration process of Romania (most likely will happen on 1 January 2007) there is an obvious need of full compatible administrations, that's way there is an increasing relay on *Development Regions* which represents statistical (not administrative) territorial units (NUTS II), established under the EU's NUTS system (fr. of "Nomenclature des Unité Territorial Statistique"), which are used for the absorption of EU pre-accession funds and distribution of structural funds after accession.



**Ministry of Public Finance** (MPF) is responsible for construction and general administration of public financial resources, by several budgets of different structures (state and local administrative units, social insurances, special funds, etc). It hosts National Authority for Coordination of Structural Funds (under EU integration) and it is responsible with co-ordination of National Strategic Plan with National Plan for Rural Development and sectorial operational plans supported by structural funds. Within it there is the National Strategic Committee for Rural Development (CNSDR), a mechanism dedicated to full convergence of institutional structure related to MAPDR in the way to elaborate the National Strategic Plan (NPS) and National Plan for Rural Development (NPRD), with specific purpose to define strategic measures, priorities and the architecture of plan. For the better implementation of structural instruments of EU, it was established a National Coordinating Committee for Structural Funds (CNFS), a decisional inter-ministerial body, at the governmental level. In the scope to ensure a better performance of European funds allocation at regional level, national authorities recognized the role of co-ordination mechanism of regional level by establishing the Regional Coordinating Committees that would coordinate operational sectorial programs and Rural Development Program.

The whole institutional framework for a coherent and functional drought, land degradation and desertification prevention and control is more comprehensive and it is continually improved and enhanced, such as: strength of the National Agency for Cadastre and Estate Publicity (ANCPPI) in terms of technical and institutional capacities and financial resources; reorganization and improvement of the National Agency for Agriculture Consultancy (ANCA) that provide guide of activities for farmers and for decision makers in planning activity; strength of regional and local institutions for EU structural funds management; enhancement of local and regional organization for structural fund management; stimulation by law of local communities to associate in different type of organizations, also with private sector in public-private partnerships; institutional mechanisms for green investments have been issued or are under preparation, especially in the energy and renewable sectors; strength of laws and institutions to follow land use change; institutional and legislative support and promotion of incentives and financial tools for agribusiness, environmental agriculture, sustainable use of forests in national frames or EU accession funds; Ministry of Agriculture approaches to construct a system for ensuring adequate legal and juridical assistance in rural areas, especially related to land tenure.

### 2.3 ENABLING LEGISLATIVE FRAMEWORK FOR THE IMPLEMENTATION OF THE CONVENTION REQUIREMENTS AND NATIONAL ACTION PROGRAM

Accession of Romania to UNCCD was ratified by Law 111/1998. Subsequent secondary specific legislation promoted refers to governmental decisions on the establishment of National Committee and the payment of contribution of the country to UNCCD and 2 ministerial orders related to the composition of the National Committee.

Meanwhile, it has been promoted and improved a plenty of laws related to the objectives of the Convention that refers to land ownership, resources management, administration, etc.

Clarification on land properties (abusively taken by the communist in '50 of past century) used to be an issue in Romania for last 15 years when a series of laws and regulations have been released by different Governments. Law 18/2001 get the right to former land owners to get back a small share of their properties and not on original location, Law 1/2000 allowed an increase of the area the owners might take back, while the most recent one, Law 247/2005 allows full restitution of the properties on their original location. This succession of laws created serious issues related to

the land ownership and has retarded the implementation of policies for sustainable development of rural areas and agriculture.

Improved land management is achieved by several laws, out of which Law 566/2004 promotes the establishment of agricultural cooperative farms, as voluntary associations of individuals or other associations, with a large range of activities: rural services; commercial; agricultural products based food processing, small industry; financing, mutual assistance and insurance for agriculture; production and administration of agricultural, forestry, fishing, livestock lands. Their funding is ensured by contribution of holders, profit, credits and others. State stimulates the establishment of such cooperation by: exemption of tax paying for first 5 years of existence, charge the tax on the profit by 20 % lower over first 5 years of existence, offers full access to public subsidies and funding system; exemption of tax for import of agricultural machineries.

Law 18/1991 establishes the Land Improvement Fund, with the purpose to reclaim degraded lands, with two destinations: a forest sections and an agricultural section. Later, GD 786/1993 approves the *Regulations regarding the settle down of the lands types which may be included in the reclamation perimeters* which provisions that a) all degraded or unproductive lands, no matter the ownership, are included in improvement perimeters, whose restoration is necessary from the point of view of the soil protection, hydrological regime, improvement of environment conditions and the biological diversity, and b) there are considered as degraded lands, in the light of Law on Land Fund 18/1991 and above mentioned Regulations, the lands that lost their productive capacity for agriculture or forestry trough erosion, pollution, or the action of other human factors and those lands must be grouped in reclamation/improvement perimeters. As well, GD provisions rules on the composition, procedures and tasks of the *Commission of experts in charge with the settle down of improvement perimeter*. Composition of the commission consists in: a) mayor of the village, as the president of the commission, b) representative of the Agricultural Chamber, c) representative of forestry branches or district, d) representative of Cadastral and Territory Planning, e) representative of Environment Protection Agency, f) representative of land improvement society or administration, g) in the special situations of heavy degradation, it must be present an expert from the Ecological Commission of Romanian Academy, National Authority of Romanian Waters, Office for Studies of Pedology and Agrochemistry, as well as from other specialized institutions; h) owners of degraded lands included in the improvement perimeters, i) Local Council secretary, as being also the commission secretary. Experts in the Commission are nominated by the county Prefect, upon the nominations proposals made by the Local Councils and above mentioned institutions or units. Additionally the owners of degraded lands are exempted from tax paying on the lands, once these are declared reclamation/improvements areas, for a time period till the land is reintroduced into productive cycles.

Law 289/2002 on Protection Forest Belts defines forest belts and corridors, their types according their purpose and location and the procedures for their establishment. These belts are “good of national interest” and their settlement is “a cause of public utility”, consequently it is being settled down the „National System of Protection Forest Belts”. Law nominates the zones of the country where belt establishment is needed; it is given highest priority to arid areas. As public utility they are established no matter the owner will, if land owners agree they became forest owner otherwise the lands will be taken over by the state and owner will be “just and right” compensated. Forest belt management is the task of the owner, incomes generated belongs to him, while the grazing is strictly forbidden in the forest belts.

HG 548/ 2003 establishes the responsibilities of MAFRD as the coordinating authority of the Program of Establishment of the National System of Protection Forest Belts, its membership, way of functioning tasks of counties commandments and

analyze the annually program of establishment of protection forest belts. Program is being under continuous implementation and financed through various sources.

Law 138/2004 on Land Improvement Infrastructure establishes the general and specific objectives of land infrastructure and associated land improvement categories (water course embedment, irrigation and rice crops fields, soil erosion combat, improvement of land slides, improvement of salty soils, industrial wastes or mining dumps reclamation, forest belts and plantations to combat soil erosion). Implementation of land improvement works is being done based on national programs or local authorities or juridical and individual owners in full accord with their interest and territory management plans, under compliance with environment protection rules. Scope of the law is to ensure equitable exploitation of land improvement infrastructure in order to ensure the protection of interests of all beneficiaries. Law promotes the establishment of voluntary association of land improvement (named organizations) with a rank of public utility, of land holders that hosts such infrastructures, to develop following activities of public interest (irrigation, drainage, soil protection, etc). The state intervenes by ANIF (National Administration of Land Improvement) and by funds allocation from the state budget to complete ANIF or beneficiaries resources (for the improvement of those public utilities, if the owner is not able to manage oneself). Organizations have an official status, and they achieve incomes from the works they perform, and, as the public utilities, are fully eligible for state subsidies.

Law of Land Fund 18/1991 stipulates, over the art. 88, that following actions, according the penal code, are considered contraventions to the rules for the records, protection, use and improvement of agricultural and forestry lands: a) interchange of lands and change of land use from a superior to a inferior category, as well as temporary or permanent use of agricultural or forest land for other purposes than agricultural or forestry production, b) fail to declare/register at the county cadastral office any lands interchange or change of land use category, by the owners, in 30 days since the approval of change, c) fail to keep in good conditions or deliberately destroy the geodesic or topographical land marks. The legal circulation of lands is provisioned in the Law no. 54/1998, which establishes the rules related to the transactions.

National legislation is very comprehensive in other filed of activities related to the areas under the threat of drought, land degradation and desertification, even there are no specific articles referring to these issues, they are fully applicable to the areas under threats. There is legislation that clarify the terms and understanding of terms used in the legislation to avoid any further misunderstanding (definition of rural space, terms of reference for integrated system for administration and control, etc). There have been promoted rules and regulations that regulate the means and activities, production, processing in different fields: domestic animal husbandry (Law 72/2002), support to young living in rural areas (Law 646/2002), fruit trees and orchards (Law 348/2003), regime of production of vegetables (Law 312/2003), organization of grapes and vine production (Law 244/2002), cadastre and estate records (Law 7/1996) and the regime on the circulation of land properties (Law 54/1998, Law 247/2005), regulation for establishing and functioning of the agricultural markets (Law 73/2002), food safety (Law 150/2004), rules for the financial support in agriculture and forestry (Law 454/2003), civil protection in case of natural disasters (Law 106/1990 and Law 160/2000), compensation and emergency aid in case of calamities for agricultural crops (Law 381/2004), agricultural credit (Law 150/2004), regulation of good and production insurance system (Law 32/2000), water laws (Law 310/2004), potable water quality supplied for population use (Law 311/2004), mechanisms for consolidation of small land parcels by establishment of life annuity and exoneration of judiciary taxes and fiscal stamp (Law 247/2005), laws on educational, health and juridical assistance in rural areas.

## 2.4 SYNERGY WITH OTHER CONVENTIONS

Almost all important Multilateral Environmental Agreements (MEAs) have been ratified by Romania. MEAs contain requirements that are synergistically approached by institutional, legal, educational, financial tools, instruments or resources, often relevant for drought, land degradation and desertification issues and approach. At national level, ratified MEAs, under different degrees of development, are in the way of their implementation.

### 2.4.1 National context regarding the synergy among Rio Conventions

An thorough assessment of both thematic (single convention) as well as capacity cross cutting needs for the implementation of the Rio Convention at national level has been achieved in the UNDP-GEF supported National Capacity Self-Assessment, carried out over 2004-2005 (NCSA results are summarized in the *Final Report on the implementation of Rio Conventions*, available at <http://www.undp.ro/environment/ncsa.php>). They identified capacity issues and priorities, based on extensive consultations with key stakeholders and civil society at national and relevant local levels. The NCSA Final Report contains capacity development Action Plans for each convention and a Joint Action Plan for the implementation of the Rio Conventions, specifying 25 priority objectives and actions, under seven topics (institutional framework at all levels, legislative framework, planning, research and systemic observation, education, awareness, instruments and mechanisms for financing). The Thematic Report concerning the implementation of the United Nations Convention to Combat Desertification, developed in the first phase of the National Capacity Self Assessment Project, identified major constraints hindering the fulfillment of the obligations assumed under Convention, through the analysis of the capacity of responsiveness to the legislative, institutional requirements of formulating policies and strategies conceptualized by Convention. By SWOT analysis there were actually identified the strengths, weaknesses, opportunities and threats concerning capacity to fulfill the obligations assumed by Romania. That moment problems relative to the Convention's implementation were identified and prioritized within a highly consultative process, as follows: 1) Absence of a Unit for Convention's Implementation and the non-operation of the National Committee to combat drought, land degradation and desertification; 2) National Strategy to Combat Drought, Land Degradation and the National Action Program drawn up in 2000 are not operational yet, as they were not adopted by a normative document. The Activities developed at present in CCD relevant fields rely exclusively on sectorial policies or strategies; 3) There were not developed specific systems for early warning of drought and land degradation. The only functional system is for agro-meteorological monitoring but it has to be developed and adapted appropriately so as to respond to the drought effects prevention. The systems for monitoring land degradation, ecosystems condition, and social condition in the affected areas must be developed; 4) There is not a consultative and participatory approach to the action programs and decisions made by the public authorities for CDD-relevant issues. There is not enough development of the institutional cooperation mechanisms and dialogue between authorities and organizations involved with programs and projects implementation; 5) Lack of programs and specific measures for raising public awareness of the effects of drought, land degradation or desertification; 6) Lack of specific measures for improving the economic environment in the areas affected by drought, land degradation or desertification; 7) Lack of research program for problems specific to drought, land degradation and desertification as well as actions of transferring to the users the outcome of the researches performed by specialized institutes at the requirements level; 8) Lack of a system for data collecting, transmitting, processing and periodical reporting of the implementation status for the National Action Program; lack of transparency of the relevant institutions, 9) Reduced

knowledge and insufficient implementation of long-lasting practices for land usage in the areas affected by drought, land and ecosystems degradation and desertification, 10) Lack of system of parameters to evaluate risks and identify the areas affected by degradation, including district maps drawing up in relation thereto; 11) Deficiencies in the educational and informational system of schools, universities and public institutions by inappropriate school curricula and education programs as regards the social and economic issues, market requirements at the local, regional and national level; 12) Insufficient number of permanent education and improvement programs for the active involvement of specialists in the field of agricultural and environmental consultancy as regards to drought, land degradation and desertification related issues; 13) Insignificant activities carried on by nongovernmental organizations for CDD specific fields and lack of communication and cooperation with the public authority so that to enable efficient measures for dissemination and raising public awareness. NCSA Action Plan was formally adopted by the MEWM, which is currently under implementation and it has been already created a framework for monitoring of the implementation.

#### **2.4.2 Approach of synergy at project level**

In the approach for the land degradation improvement, environment synergies are ensured by applying national legislation (technical guidelines in forestry, occasionally environment impact assessment) and involved experts vision. Despite the efforts to minimize the impact on the environment and local community they are not fully avoided. Such an example is afforestation of degraded pasture, that has a good impact on halting erosion and improvement of land use (and much many other significant benefits), it is always associated a negative impact caused by reduction of grazing areas, that involve sometimes further land use and social conflicts or resources shrinkage. A good example on how to deal with afforestation of agricultural marginal and degraded lands, to provide global and local environment benefits and address local conflictual land use, based on Kyoto protocol's joint implementation flexible mechanism is "Afforestation of degraded agricultural land" (a partnership between National Forest Administration - Romsilva and Prototype Carbon Fund, administered by the World Bank) and its associated "Public outreach and support program for climate change", financed through Japan Policy and Human Resources Development Fund (PHRD).

Another conflictual land use is generated by the approach of rigorous (rectangular) scheme of forest belts on the arable land without taking into account the soil and terrain variability and fertility, neither the will of owners.

Ecological and biological agriculture, production of certified agricultural food are stimulated by national legislation and likely to find a place on European and international market.

Process of certification of forestry management and development of management plans of the areas under conservation regime; generate enhanced environmental and social synergies.

### **2.5 SUBREGIONAL APPROACHES**

#### **2.5.1 Drought Management Center in South Eastern Europe**

Drought occurrence in Balkans and South Eastern Europe is a recurrent phenomenon that creates serious development problems, especially in rural areas of the region. Noting this situation, the UNCCD Annex V countries in the region, facilitated by the Europe Unit of UNCCD Secretariat, initiated formal discussion for the establishment of a network and a center with the task to ensure preparedness, monitoring and management of drought in the region. Two technical workshops have been held so far, first one in Poiana Brasov, Romania (25-27 October) and 2<sup>nd</sup> one in Sofia, Bulgaria (26 – 28 April 2006). To fully utilize the approach the World Meteorological Organization, WMO, is a party in this process, and its role is

becoming more prevalent as the center starts running. The countries in the region interested in participating to the network and center agreed already in Sofia meeting on aims and objectives, tasks and functioning of the center. Center will be hosted by a national meteorological service in the region, as decided by the countries participating in the network. According the schedule to establish the center it was decided in Sofia meeting that the deadline for application of interest for hosting the center is before 30 June 2006 and the name of institution selected to host the center will be likely delivered in September 2006, after a meeting of representatives from Permanent missions of relevant countries in Geneva.

### **2.5.2 Participation in Regional Thematic Networks**

*Regional meeting for strengthening cooperation in the field of land resources management in Central and Eastern Europe (CEE)* held in 15-16 December 2003, in Minsk, Belarus, assessed the interest, offer and need of the countries in the region over several areas of possible cooperation (Scientific cooperation/networking, Technology/savoir faire/expertise, Training/capacity building, Documentation/materials/publication) and proceeded to establish priority field of cooperation and further to create associated networks of cooperation. Over a specific process of consultations performed over all parties in the Annex V there were identified areas of cooperation, which were ranked/prioritized according parties' interest. In the same meeting there were established the host institutions, that would lead the activity at regional level. In this framework, regarding scientific cooperation/networking the Forest Research and Management Institute from Romania was selected to play a key role as the host institution for the development of regional cooperation in the area of *reforestation, afforestation and tree plantation in affected areas*. Afterwards, it was established the network, entitled "*Afforestation in temperate zones affected by drought*". Its objectives are: a) to create a communication and sharing experience platform; b) to share information and database on management and technical issues related to afforestation/reforestation/revegetation / plantation in affected areas c) to approach relevant environmental issues related to afforestation/reforestation (landscape improvement, land use and land use change related issues, positive and negative short/medium/long term effects, local and global issues; environment impact assessment and environment improvement contribution at landscape level, multilateral synergies); d) to promote sustainability; e) update on innovative instruments or issues. It was a very slow progress in developing the network, caused by the lack of funding, but currently the MAFRD is financing a project named "Establishment of the thematic network in the filed of afforestation in the regional implementation context of UNCCD", with a budget of 12 000 Euro/2006. Over current year a web page will be established and relevant information will be made available in.

### **2.5.3 Scientific networks at the national, sub-regional and regional levels**

#### **2.5.3.1 Research and scientific networks at the national level**

*Academy of Agricultural and Forest Sciences "Gheorghe Ionescu - Sisesti"* is a public specialized institution, of academic devotion and scientific coordination, legally established that functions based on its own status, under the coordination of MAFRD and in cooperation with Ministry of Education and Research. ASAS has under its subordination 17 institutes and centers for research and development in agriculture and 51 research and development centers throughout the country, out of which 8 institutes and 10 centers are dealing with issues related to drought, land degradation and desertification. ASAS achieves a full cooperation with the territorial units of the University of Agronomic Sciences and Veterinary Medicine (USAMV) and actively cooperate with National Agency for Agricultural Consultancy (ANCA) for the

transfer of research results to the users. Together its research units at territorial level, ASAS represents a driver that allows a systemic approach of the research integration into the framework of the sustainable development of the country. Scientific research and technological development of ASAS is fulfilled by more than 800 specialists (university level studies). Its research infrastructure is constituted from analytic laboratories, complex devices (fithotrons, zoo-trons, apitron), green houses and vegetation chambers, runoff and erosions parcels, genetic banks, databases, long run experimental fields, etc. A key activity of ASAS is specific consultancy activity and the technological transfer of the research results to users, by providing of high amount of selected seeds of newly improved races. General objectives of ASAS are: increased contribution of the research to agriculture, forestry and rural development in Romania, supply the genetic material for improved of animal and vegetal production; elaboration of advanced technologies for the protection of crops, livestock and environment; enhanced production and high-quality standard products; support of the administration for policy elaboration and implementation. Because of systemic weakness (lack of critical mass of specialists and redundancy of institutions and research objectives) of actual research systems in agriculture, currently the agricultural and forestry research pass through deep reorganization process as to fit better to structural changes of all economic and social sectors, and to further offer improved services, an increased efficiency of funding, avoid redundancy and reorient the research and technology toward knowledge promotion, innovation and development of new products market and user oriented. Reform of the agricultural research is assisted through a loan from the World Bank in the MAKIS framework (Modernizing Agricultural Knowledge & Information Systems Project).

Other institutions, either national or under other frameworks are currently active involved in solving sectorial issues in different other field related to drought, land degradation and desertification. Such institutes are: *Forest Research and Management Institute* (ICAS) lead projects in the filed of forestry and afforestation, *National Administration of Meteorology* (ANM) manage projects related to drought dynamics, forecasting, agrometeorology and provides appropriate services for end-users and stakeholders at different levels through specific channels; *National Research and Development Institute for Environment Engineering* (ICIM) and other institutes subordinated to the Romanian Academy such as: *Institute for Research on the Quality of Life* (ICCV) develops projects related to assessment of social status as a base for promotion of sustainable development strategies; *Institute of Agrarian Economy* (IEA) develops projects focusing on the development of rural communities under EU integration process, analyze of dimension of agriculture and food production and processing at regional and local level under EU integration; *Institute of National Economy* (IEN) develops projects related to impact of disasters on EU countries, social inclusion and competitively of agri-food Romanian sectors at EU level, causes and effects of economical and social associated to climate change; *Institute of Geography* in charge with several projects related to land use and climate change impact on communities; *Center of the Economy of Industry and Services* develops project related to eco-energetic efficiency of renewable resources.

Despite the apparent complexity and potential of research sector, most of the institutions suffer lack of funds, personnel and updated equipments, as there is low capacity to adapt to emerging market economy and access funds in open competition.

#### **2.5.3.2 Research and scientific networks at the regional and international level**

There is no a systematic scientific cooperation in the field of drought, land degradation and desertification, even at project level the cooperation is weak. Even there have been initiatives they were not successful. Romanian research and development institutions have full access to EU RTD framework. Despite the efforts

made at national level there is still a low participation in EU relevant projects.

### **CHAPTER 3. PARTICIPATORY PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF ACTION PROGRAM, PARTICULARLY PROCESSES INVOLVING CIVIL SOCIETY, NON-GOVERNMENTAL ORGANIZATIONS AND COMMUNITY-BASED ORGANIZATIONS**

#### **3.1. EFFECTIVE PARTICIPATION OF ACTORS IN DEFINING NATIONAL PRIORITIES**

Members of the National Committee participate in other plans elaboration and meetings related to the activities relevant for UNCCD implementation at international, national, sub-national and local levels. Capacity of National Committee, as a whole or by its members, in *influencing and mainstream of UNCCD implementation objectives is based* on: 1) members of National Committee are involved in discussions/forums/negotiations of sectorial and strategically operational plans, environmental national and local plans, economical development strategies, national development plan, reviewer of the projects related to agriculture, forestry and land use improvement; 2) eligibility criteria for new projects proposals related to environment or activities related to land use, promoted by different national or international agencies in the country, have been reviewed or are currently under revision as to ensure a mandatory synergetic approach of land use projects and 3) members of the National Committee are appointed to participate in the meetings of the National Commission of Climate Change and National Committee for Conservation of the Biological Diversity, to ensure proper synergy, as well as in other structures.

Most of the Romanian institutions or persons are active members in EU or international networks (EUMETSAT, EIONET, ECMWF, OPERA, PMRPT, PMCC, IUFRO, IPGRI, ICID, UNFCCC, UNCBD, Ramsar, EFI, FP6, COST, bilaterals, etc). No NGO representative is formally part of the National Committee, but its meetings are open to public, and representatives of civil organizations are invited to discussions. Romanian NGOs accredited to UNCCD develop weak activities, because of lack of funds.

Regional structure and local authorities are also low involved in drafting and implementation of strategies and projects proposals or implementation, even this situation is changing. Educational efforts, awareness actions and improved legislation are made to increase the communication between local and national stakeholders and actors, and develop partnerships.

#### **3.2 TRENDS IN THE PARTICIPATORY PROCESS**

According the constitution the right of citizens to any public information may not be restricted, consequently public authority, based on their competencies are obliged to correctly inform the citizens on public business and on business of personal interest. As well, Romania is a party to Aarhus Convention (ratified by Law 86/2000) on the access to information, participation of public to decision making process and access to justice on environmental matters, that promote the right of citizens to be informed and participate in the decision making that refers to them.

Consequently, there is an increase of the participation of all stakeholders, in discussions, drafting and negotiations, as the decentralization process occur at national level, in the way of EU integration and increase pressure of the community organizations for transparent decisions and actions. There is still a continuous need for the improvement of the capacity and skills of local authorities and civil society for negotiations, understanding of sustainable management practices and approaches,



communication and cooperation (between local authorities, communities and organizations).

### **3.2.1. World Day to Combat Desertification (WDCD)**

World Day to Combat Desertification is celebrated yearly by the Ministry of Agriculture, Forests and Rural Development, together Academy for Agriculture and Forest Sciences and other institutions, at the request of the Technical Secretariat of the National Committee for Combat of Drought, Land Degradation and Desertification. It is organized as 1 day event, and benefit from inputs from invited stakeholders and policy makers at national level.

### **3.2.2 Audio-visual materials**

Several scientific and technical meetings are organized, either on annual or more often schedule either occasionally, supported either by national or mostly by international organizations under different frames. Such examples are: numerous professional meetings related to chemical and fertilizers use; forests seeds and seedlings; forest belt establishment, sand dune stabilizing, forest management approach in small private forests; promotion of new technologies for cultivation of crop on sand and arid areas, exhibitions of technology, machinery and products.

Awareness actions are well accounted at national level, such as annual ceremony of "Planting trees" within the "Forest's Month" which is held annually between March 15 to April 15. Over this period there are developed actions at national level on seedling plantations with various stakeholders, poem dedicated to forest contest, stamps exhibitions, meetings with stakeholders, and civil society. National tv channel TVR 2, broadcasted between 2003 – 2004, the show ECO, sponsored by National Forest Administration - Romsilva. TV contest "Together for the Nature", sponsored as well by Romsilva, promoted the awareness for nature conservation at schools and high schools in the area of national parks. Of significance are the magazines: "Profitul Roman", "Agriplus", "World of Forests". Mass media (radio and TV) develop on continual basis broadcasts and talk shows that reveals issues related to land use activities (both positive and negative aspects), as well as professional shows that offer technical information for land owners.

### **3.2.3. Private sector involvement in rural areas**

Government of Romania adopted the GD 656/2002 for the adoption of European Cart for Small and Medium Enterprises, as a recognition of fact that these economic entities represents the back bone of the Romanian economy, and a solution for increased competitiveness and progress of the country's economy and social welfare. Private sector is considered as a strategic partner in the approach of structural changes in rural areas of the country. Public private partnership is considered as a viable way to involve private management in public services, attested in long run firm contract between a public authority and a private operator. Guides for best practices on private public partnerships are promoted in order to allow more approaches. Toward the promotion of public-privat partnerships the legislative relevant framework has been adopted and harmonized (regime of investments, tax regime, law of commercial societies, regime of construction, regime of public acquisition, environment protection, regime of forest fund, intellectual property rights, law of friendly approach of commercial litigations, civil codes, enforcement of contracting regulations).

### **3.2.4 Gender balance of actors involved in defining national action program priorities**

Romanian Constitution states that all citizens of the country have equal rights no matter of race, nationality, ethnics, language, sex, opinion, political affiliation, wealth or social status. Its citizens are equal in their rights before the law and public

authorities, without any privilege and discrimination, and nobody is above the law, while the access to justice is entirely free for any citizen. In Romania, public authorities respect and protect the privacy of family and individuals and the home residency is inviolable. Freedom of thinking can not be restricted in any way as it should manifest in the spirit of the tolerance and mutual respect.

Related to kids, the parents or tutors have the right to ensure, according their own conviction, the education of their own infants, of whom education they are accountable for. Right to education is ensured by obligatory elementary school, which is free for state school. Health protection is guaranteed. At the same work, the salaries of women are equal to men's. Citizens have right to retirement, paid maternity leave for 2 years, and medical assistance in state units, unemployment aid and other forms of social assistance.

Family is settling down based on voluntary will of spouses, on their equality and the rights and obligation of parents to raise children; to ensure education and instruction of their children. Children and youth have special protection regime and assistance in achieving their rights. State grants allocation for kids and aids for the carrying of ill children or handicapped, as other rights are promoted by specific laws. Abuses of infants, their use in activities that may damage their health, morality or treat their life or normal growth are forbidden. Infants under 15 years old may not be employed. Public authority have obligation to ensure the environment for full participation of youth to political, social, economical, cultural and sportive life.

There are laws that stimulates establishment of the youth professionals in rural areas; land allocation for poor or dislocated families; laws and incentive systems for land aggregation.

Although the equality of chances between men and women is stated *de iure* in Romanian legislation, civil society is signaling *de facto* non compliance with. European *aquis communautaire* in this field is under way to be fully adopted at national level. Women represent more than 50 % of the population. Over recent years women represented like 43 % of employed population. The salaries of women are less than men's, and the salaries of economic sectors where women are majoritary employed are less under the national average, as well, according the statistics their salaries are 7-10 % less than their colleague's men, upon different sectors of economy. In the field of agriculture like 51 % of employment places are occupied by women, while in other sectors more than 70% (public administration, commercial activities). The share of women as senior staff or in leading position in the public administration is 2-3 times less than that of men. Family code (Law 59/1993) provisions the equality of spouses, as well it states that the women must bear the responsibilities of house hold and family resources, as well as carrying of kids and olds, and other small jobs, which are considered by civil society and human rights watch as an anachronic traditional model, deep rooted in the history. These discrepancies are more apparent in rural areas. Women burden related to family are even harder to bear in poor families in drought affected areas.

### **3.2.5. Traditional knowledge systems**

Alimentary and alcoholic beverages products originating in traditions of rural life, that may be identified as geographical denomination are protected and recognized in Romania by law, few of them are identified as originating in drought areas or areas under aridization.

Technologies for soil preparation, crop irrigation, harvesting and processing of agricultural, orchard and vineyard products are not inventoried, but regions or zones of the countries are recognized for their specific approach.

## **CHAPTER 4. CONSULTATIVE PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF NATIONAL ACTION PROGRAMMES AND PARTNERSHIP AGREEMENTS WITH DEVELOPED COUNTRY PARTIES AND OTHER INTERESTED ENTITIES, PARTICULARLY MOBILIZATION AND COORDINATION OF BOTH DOMESTIC AND INTERNATIONAL RESOURCES**

### **4.1 EUROPEAN UNION ACCESSION**

In its way to the European Integration, Romania engaged to fully comply EU standards in different fields, so called *aquis communautaire*, on 1 January 2007. To help Romania (and other candidate countries), several pre-accession programs have been put in place, out of which relevant are PHARE and SAPARD.

PHARE (*Pologne, Hongrie Assistance à la Reconstruction Economique*) of EU is financing projects of capacity building, technical support and staff training for the establishment of institutions that ensure to reach EU *aquis communautaire* in the field of agriculture, forestry and rural development, which Romania assumed in the chapter 7 of EU accession position document. In 2006, there are 23 projects at a total amount of 26 mil.Euro.

SAPARD (Special Accession Program for Agriculture & Rural Development) finances projects under specified priority axis of development in rural areas, agriculture and forestry, toward development of production chains, improvement of agro-food markets and integrated development of rural space. An amount of 208 mil. Euro was used in 2005, in different projects.

### **4.2 INTERNATIONAL COOPERATION**

Ministry of Agriculture, Forests and Rural Development is developing a series of projects relevant for drought, land degradation and desertification combat, such as:

*Agricultural Support Services Project.* Project Cost is 17,82 mil.\$ out of which World Bank Loan is 11 mil. \$. Closing Date of the projects is December 31, 2005. Strategically, the project will promote public and private services, to support the development of research and extension services for private farmers, in the way to enhance agricultural productivity and sustainability, by providing needed technology, information, and training for private farmers and agro-processors. Principal component of the project is to improve applied research and extension that supports agriculture priority problems, via a Competitive Grant Scheme - CSG. It will lead to a tight association between research scientist, extension specialists and the needs of newly emerged private farmers. CGS was open to the broad range of research and extension grant participants, also to include universities, NGOs, private industry, consultancy and extension services. Eligible grants focus on identified priority needs, marketing and low cost options, for production and processing. Proposals' evaluation criteria included farm utility, experience and transfer of technology, as well as assessment of environmental impacts.

*Biodiversity Conservation Management Project.* Total project cost is 8,8 mil.\$ out of which a World Bank loan amounting to 5,5 mil.\$; closing date is December 31, 2005. Project objectives are to strengthen the national framework for biodiversity conservation; build public support for biodiversity conservation; develop models for protected areas and forest park management.

*Forestry Development Project.* Project Cost: 31, 9 mil. \$, out of which Loan Amount World Bank: 25 mil \$, Co finance by Govern of Romania: 2,01 mil \$, National Forest Administration: 4,59 mil \$, Forest Sector Business Information Centre: 0,3 mil \$, Closing Date: June 30, 2009. Project Objectives are to establish systems to ensure sustainable management of Private Forest Lands, Mitigate the Consequences of Restitution on Management of State forest land, support increased productivity and competitiveness of forest industries, building public support for

sustainable forest management. Project has specific component related to creation of Associations of Local Forest Owners, a very important issues for the permanence of forests resources in drought affected areas of Romania where it was restored the property on significant areas of forest, where is a high number of owners with small plots.

*Irrigation Rehabilitation and Reform Project*, Project Cost: 102,947 mil \$, as follows: Loan Amount BIRD: 80 mil \$, Romanian Government: 20,7 mil \$, Local community: 2,3 mil \$. Closing Date: March 31, 2011. The project focus on (a) rehabilitation of irrigation infrastructure at national level; (b) support for institutional reform of the irrigation sector including restructuring the state-owned irrigation and land reclamation agency (SNIF), and support for establishing and developing water users' associations to manage on-farm irrigation facilities; (c) preparation of technical studies related to effective economical use of irrigation for efficient agricultural production (as to allow for cost recovery of irrigation water). Project objective is to achieve sustainable and equitable use of irrigation water for agriculture production. The project benefits private farmers through increased agriculture production and income through rehabilitation of deteriorated irrigation facilities and improved irrigation services. The project would further support the Government of Romania's initiatives for institutional reform in the land improvement and irrigation sectors.

*Modernizing Agricultural Knowledge and Information Systems (MAKIS)*. Total cost of the project is 60 mil Euro, out of which World Bank Loan Amount: 41,5 mil. Euro, Romanian Government: 14 mil. Euro, Others beneficiary: 4,3 mil Euro. Duration is 5 years from Effectiveness Date. The project objective is to assist the Romanian Government to improve the competitiveness of farmers and agro-processors through: strengthening the veterinary and fitosanitary units, support for agricultural research, improved advisory services to increase access of farmers, agro-processors and producers. The objective of the Project is to assist the Government to improve the competitiveness of farmers and agro-processors in the EU accession environment, through: (i) better implementation of measures for inspection control, risk management and communication in food safety matters; (ii) strengthened capacity of the national research system to provide agricultural knowledge, skills, and information based on the needs of the agri-food sub-sector in line with EU requirements; (iii) improved capacity of research, extension, and food safety specialists to better serve agricultural producers' needs in the context of the EU; and (iv) increased access of farmers and processors to knowledge of technologies related to production, quality control, food safety, processing and marketing in order to meet EU requirements.

*United Nations Development Program (UNDP)* addresses in Romania issues related to poverty reduction, environment and energy that focus on vulnerable groups (roma, rural women, youth (including post-institutionalized), people living with aids - through employment generation and specific interventions to promote social inclusions), capacity building of local authorities for manage trade and capital inflows and export promotion and stimulation at local levels, environment protection of particular areas. such projects are: beautiful Romania; social support center for roma; and activities monitoring for their improvement; business incubators, growing sustainable business, computer clubs for children, National Capacity Self Assessment for the implementation of the Rio Conventions and an actual CB 2 subsequent proposal.

#### 4.3 BILATERAL COOPERATION

Over 2004 - 2005 there have been developed projects under bilateral cooperation that are relevant for drought, desertification and land degradation: Netherlands (enhancement of group producers and market chain for vegetable and fruits; support for environment; milk quality); Spain (twining on the harmonization of legislation and enhancement of the capacity for administration of *aquis*

*communautaire* regarding the wine; improved capacity for reorganizing of fishing and aquaculture; training for GIS); France (pilot projects on the development of new activities and services in rural areas); Switzerland (ecologic certification in Romania 2004-2008), Belgium - Vallon Region (assessment of potatoes genetic resources and propagation of selected races; use of satellite imagery for forestry; Romania's virgin forests protection; assistance for development of common partnership between Romanian and Vallon Region, and settlements of vallons farmers in Romania; technical assistance for SAPARD); Belgium Flemish Region (training for women and cooperation members in Romania; practical aspects of agricultural pollution on lower Danube in the way of development of regional agriculture; support for creation of a pilot network for training of eco-counselors, pilot farms with the involvement of producers chain); Germany (development of cattle rising).

In the frame of FAO-TCP (Food and Agriculture Organization – Technical Cooperation Program), there are developed or developing projects in the field of control of cattle diseases; support for the program of vegetal genetic resources; development of a system for facilitation of agricultural trade in Black Sea region; safeguarding of Pinzgau cattle race; integrated protection against root worm of corn in central and East Europe; enhancement of food legislation, support for communication and information system for research and extension in agriculture and rural development, development of ecologic agriculture in Romania; optimization of water, agriculture and environment management in Carpathian basin). International Fund for Agriculture Development (IFAD) develops 1 project on the rural development in Apuseni Mountain.

Romania is member, by MAFRD, in different international organizations: FAO, IFAD, UNCCD, ICE, OCEMN, OECD, IPGRI, OIZ, ICC, CSI, OIE, FEZ, ISTA, SISH, ICID, OIV, EUROMONTANA, EUROFISH, etc.

## **CHAPTER 5. MEASURES TAKEN OR PLANNED WITHIN THE FRAMEWORK OF NATIONAL ACTION PROGRAMMES, INCLUDING MEASURES TO IMPROVE THE ECONOMIC ENVIRONMENT, TO CONSERVE NATURAL RESOURCES AND PROMOTE THEIR SUSTAINABLE USE, TO REHABILITATE DEGRADED LAND, TO ENHANCE KNOWLEDGE ON DESERTIFICATION AND ITS CONTROL, AND TO MONITOR AND ASSESS DESERTIFICATION AND DROUGHT**

### **5.1 ADEQUATE DIAGNOSIS OF PAST EXPERIENCES**

In Romania, issues related to drought and land degradation (D & LD) have been recognized and represent a continuous concern for decades. Over time there have been established several committees and bodies responsible by D & LD issues, whose impact on regional or local level have been more or less visible. On the background of heavy drought that affected Romania in '80, the Academy of Agriculture and Forest Sciences established the National Committee for Drought, a professional and scientific body that offered advice and recommendation to the national concerned authorities. As well, ad hoc regional crisis committees have been established when necessary.

Many of these committees and commissions created over time have had reduced impact, as they have been established or activated under crisis situation or for certain purposes (to legitimate granting of aid or subsidies for affected producers), without any strategic approach or vision.

## 5.2 ESTABLISHED TECHNICAL PROGRAMS AND FUNCTIONAL INTEGRATED PROJECTS TO COMBAT DESERTIFICATION

### 5.2.1 Inventory, adaptation and integration of projects under way within the NAP process

National Action Program for combat Drought, Land degradation and desertification was drafted in 2000 and it is endeavored its revise (without any precise deadline), to answer to new economical and social situation of Romania, although relevant actions are already included in operation sectorial plans, integrated with measures to be approached by agriculture, forestry and rural development.

### 5.2.2 Renewable sources of energy. Wood fuel resource, solar energy, wind energy and other energy sources

Wood and biomass represents an important fuel in rural areas house holdings. It is used as a brut material, not processed. Compared to the amount of fuel wood consumed of about 800 ttoe (thou tones of oil equivalent) before 1992, it increased by 6 times in 1996 and 3 times over the span 1997-2003. On the total income in rural areas, around 8 % is paid for household maintaining, water supply, electricity and fuels.

There is no any major improvement on renewable energy sources in the country, even high national potential is recognized for windmills and solar panels. Legislation, institutional arrangements, associated environmental tools on renewable energy resources, already in place, encourage and stimulate the use and production of woody biomass for energy production.

### 5.2.3 Irrigation systems

In Romania, irrigation is key to maintain a continuous agricultural production, for several reasons: it offsets precipitation deficits in the country's sub-humid southern and eastern regions (where it falls under 500 mm with highly uneven seasonal distributions (less than 20% of total rainfall occurs over summer); water demands of crops during July and August are high (300-500 mm); on long run, irrigation should allow capacity to agriculture to deal with the climatic associated risks; constitutes a stimulus and encouragement of private farmers to give to their crops higher market value. Romania's communist regime constructed irrigation facilities on about 3 million hectares (about 30 percent of arable land of the country), a system which is heavily marked by centralized planning and supply-driven, centralized economic approach and low environmental background. The main issues in the irrigation sector are the legacy of over-investment in irrigation infrastructure, uneconomic irrigation schemes (based on subsidized electricity), designed to serve large state farms instead of actual small large farms, lack of an effective institutional framework. The demand for irrigation declined sharply in the early 1990s, as the water supply (million m<sup>3</sup> of water) varied significantly (see the following table).

Year	1991	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Amount of water	1261	1213	1504	287	560	266	513	701	784	912	NA	NA

Nevertheless, the Government has provided irrigation subsidies to farmers. Annual allocation for irrigation subsidies ranged from US\$20 to 40 million, but only around 300,000-500,000 hectares were actually irrigated (about 10 to 16 percent of the total area covered by irrigation facilities) in 2000-2004. At the moment being there is loan from the World Bank that approach the reform of the irrigation system, in the way to review and improve the approach to move toward a more efficient sharing of costs

and risks and to provide incentives to really contribute to an efficient agriculture and rural development.

#### **5.2.4 Crop and animal improvement programs and development of new technologies to cope with drought**

At national level there is a traditional activity of improving and selecting races of different of crops, as well as introducing new crops. As well, regarding the genetically modified organisms, two species namely soybeans and corn have been introduced in cultures over past years, but at the end of last year it was decided to forbid in Romania the crops of modified soybeans starting 1<sup>st</sup> January 2007. Meanwhile several races of maize will be allowed in culture for human food, but entirely complying with specific rules of EU to label the products. At national level there is an activity of improving and promoting technologies to cope with drought. Projects on the agricultural technologies, systems and agro-technical methods for improved water use efficiency and mitigation of drought impacts and elaboration of integrated zonal systems for efficient use of limited water resources by irrigation at main crops.

One research and development institution devoted to improvements of crops is the Institute for Research and Development in Agriculture Fundulea under the coordination of ASAS. Its current or recently funded projects developed focus on the improvement of the drought tolerance of wheat, maize and alfalfa based on physiological traits selection. Other research and development institutes develop research in the filed of plant protection (Institute for Research and Development for Plant Protection Bucharest); pastures management (Institute for Research and Development of Pastures Brasov); cultures of potatoes and sugar beet (Institute for Research and Development Brasov); fruit trees cultures and orchards (Institute for Research and Development for Fruit Trees Cultures Maracineni, Institute for Research and Development for the Industrialization and Marketing of Horticultural Products "Horting", Bucuresti); viticulture and vine processing (Institute for Research and Development Valea Calugareasca); vegetables cultures and flower growing (Institute for Research and Development Vidra); animal rising (Institute of Biology & Animal Nutrition and Institute for Livestock rising Balotesti); rising sheeps and goats (Institute for Research and Development for rising goats and sheeps Palas Constanta); aquatic ecology, farm-fishing and aquaculture (Institute for Research and Development for aquatic ecology, farm-fishing and aquaculture Galati), agricultural economy and rural development (Research Institute for Agricultural Economy and Rural Development Bucuresti).

#### **5.2.5 Development of new technologies for land degradation prevention and combat**

Degradation occurs over several types of land uses and ecosystems due to both intensive land use and poor management practices or even land abandonment, processes much accentuated as climate change occur on the driest areas of the country. Dimension of land degradation in Romania is provided in the country profile, at the beginning of this report. Large concern on the promotion of the more effective means and ways to prevent and combat land degradation are for almost half of century in the attention of agriculturists, foresters and other specialists, as over time appropriate guidelines were provided for different fields of economic activity.

Related to forestry the Forest Research and Management Institute develop new technologies for afforestation of degraded and marginal agricultural lands, methods for maintaining and tending artificial stands as well as forest regeneration and degraded stands reconstruction in drought affected areas of the country (such as "under canopy" regeneration of xerophytic oaks in Dobrogea; close to nature methods of regeneration relying on natural disseminated seeds of decay vulnerable tress species; technology for seedlings planting in sandy dunes). Technical solutions

for afforestation of degraded lands are achievements learned over more than 50 years of research and experimentations, carried out in 50 areas and experimental plots, with some 60 tree and brush species, in plots over all areas of the country, in different climatic and physical-geographical regions of the country. Recently a new method for cartography of degraded lands in unitary sites has been developed by the Faculty of Forestry, University of "Transilvania" in Brasov, that make easier the identification, delimiting, description, characterization and grouping of units of degraded lands. Recent research of ICAS focused on the site particularities of degraded lands affected by erosion and land slide in South East of the country, the behaviors of species used for the their afforestation and thus improved technologies have been promoted. In areas with high variable groundwater level (wet in spring and dry in summer) technologies for establishing of forest by planting long graft has been experimented and promoted. Based on these research results technical guidelines have been approved either by the MAFRD and NFA Romsilva and released to the users.

### **5.2.6 Sustainable use and management of land**

Romania has a total of 23.8 million ha of land, out of which 27 % is forests and 61 % agriculture (64 % arable, 22 % pastures, 10% hayfields, 1 % vineyards, 3% orchards), which gives to both agriculture and forestry considerable contribution to produce a commercially viable products. Due mainly to problems inherited from the communist regime and to difficulties in implementing transition policies, all land use related activities are in disarray, even recent years, while EU accession process, the principles and instrument are put in place to join the Common Agricultural Policy.

Romanian legislation and institutions are much concerned about natural resources degradation. Current EU accessing of Romania brings enhanced integration and sustainable approach of the activities related to land use management.

National legislative framework is very comprehensive and it covers all issues related to natural resources use and their sustainable management. These regulations fully apply for the areas affected by drought, land degradation and desertification. Example of such laws: law of land improvement/rehabilitation; law of forest belts establishment; law of orchards, law of vegetables, law of wine and vinery, law of livestock, several laws on protected areas, forest code, support for people/communities in case of natural hazards, etc.

Institutions and administrations are under current process of restructuring, decentralization, which shifts the approach of natural resource management from sectorial/centralized toward integrated/horizontal one. A key issue is land cadastre for agriculture and forests (in fact for all land use), which is now under the development phase, and this would reveal real situation of the land (ownership, type of land use, land quality, crop suitability status).

Although the understanding of integrated land use is in an initial maturity phase in Romania, the current approach consists in a sectorial approach, concurrence and even conflicts, among different types of activities of land use, there are established or under consideration economical and financial mechanisms and instruments to be approached at national or local level in the way to support some specific actions and measures on integrated land use.

### **5.2.7 Sustainable use and management of forest resources**

In dry regions of the country the percent of forests is less than 10 %. These forests are under pressure of natural phenomena (insect outbreaks, decline and drought), high request for fuel wood and sometimes illegal cutting, non efficient use of quality wood, shift from natural to artificial stands, human pressure. The three laws on forest properties restitution (18/1991, 1/2000 and 247/2005) disoriented the owners, and consequently serious management problems occurred in plain areas. In



some places the forests have been cut and not regenerated, but overgrazed. A big issue is related to the fact that reforestation of private owned cut forests does not occur according "Forest code" (reforestation of lands should be done in max 2 years after old forests cut). So far, there is no an updated assessment of the area of the cut and unregenerate forests. The administration for private forests is very weak, what lead to forest code non-compliance and thus to forests destruction in many areas, already affected by sand dunes movement, drought and lack of wood resources.

Actual authorities are doing tremendous efforts to stimulate association of small area forest owners in order to ensure proper administration and management of their forests, and as well to clarify the responsibility of owner related to forest, which has been confusing so far.

Because of large areas of degraded land, available agricultural land of private owners and favorable legislation, it is an increase of areas planted with forest trees, based on national programs or international projects. Afforestation of degraded lands relaunched after 1999, after a period of slow pace. Degraded lands area annually planted, in average, before 1989 was 15 000 ha, between 1990 to 2000 it decreased to some 630 ha, as after 2001 it is some 3000 ha. Areas afforested are those flagged as first priority in the National Action Program to Combat Drought, Land Degradation and Desertification. Afforested area of degraded lands dynamics is given in the following table.

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Affore- station (ha)	14949	1786	567	201	133	384	531	1085	299	102	857	967.6	1104	2192	4290	4281

Yearly, the funds for the afforestation of degraded lands are shared from different sources: national Fund for Land Reclamation (administered by the MAFRD) - some 60 %; Fund of Forest Conservation and Regeneration (administered by the NFA Romsilva) - 35 %; budgetary allocation - max 5 % (not every year). A joint implementation project of afforestation of marginal agricultural lands developed under Art 3.3 of Kyoto Protocol is also running since 2002. As well, the Fund for Land Reclamation provides funds for agricultural land reclamation and improvement.

Due to increase of private properties area of land, the owner plant themselves on their land, small patches of forests, for own use. For the moment there is no any statistics on area planted in such a way, but the change of statistical system in 2006, this information will come out.

National Program of Forest Belts initiated recent year is underway; it started in 2005 with the feasibility studies and execution projects for almost 19800 ha and it will continue current year with almost 10 000 ha. Meanwhile the forest belt execution started in the areas under highest emergency (for road and railways protection) in the south of the country.

National Forests Administration grants annually, free of charge, a various amount of seedlings to persons or communities interested to plant on their own land. In parallel small and numerous private nurseries provide forest trees seedlings for plantations.

### 5.2.8 Sustainable use and management of rangelands

Most of the pastures placed in the areas affected by drought and desertification are very low productive and degraded. At national level 97 % from the pastures are private, out of which 44 % belongs to local councils and 56 % to private persons. Only 21 % from pastures are located in plain areas, almost all this area is affected by drought, as follows: in steppe area 90 000 ha, in silvosteppe 250 000 ha and in forest dry forest areas 150 000 ha, to which add non-zonal pastures in

riverbed areas. Their productivity is 2-4 to/ha of fresh biomass in steppe, 3-5 to/ha in silvosteppe and 4-8 to/ha in dry forest areas, which sustains like 1 mil. cattle and 3.3 mil. of sheeps and goats.

A general feature of the pasture is that they are at all or very poor managed, overgrazed and not maintain and improved by specific measures for long, which creates extremely high pressure on other land uses (especially on agricultural and forests land), constitutes a source of local conflicts and diminish the biological production of grazing animals.

Currently, financing of the pasture rehabilitation is achieved as follows: grazing taxes (23%), wood selling (6%), overproduction marketing (4%) and the owner contribution (13%) and state subsidies (54 %). State subsidies are provided for: fertilization costs (equivalent of 100 kgN/ha), amendments apply (30% of total costs/ha); seeds (30% of total costs and amendments applying); chemical substances for protection (50%/ha of total cost); technical support for program implementation represents 2% of the budgetary subvention. Land Improvement Fund - agricultural section, managed by MAPDR, annually allocates important funds for grazing rehabilitation, as is following in table:

Year	Surface of improvement perimeter (thou ha)	Budget approved (billions ROL)
2000	9,7	47,7
2001	10,9	57,3
2002	16,7	99,2
2003	17,1	164
2004	18	205

There are not confident statistics regarding the destination of rehabilitated land, but, based on MAPDR sources, at least half of these areas are grazing area. General feature of grazing fields is that they are not at all or very low managed for long time and overgrazed, what leads to an important pressure over other types of land use (especially agricultural and forest ecosystems). Due to this situation it comes out often local conflicts, and the livestock production is lower because of the bad forage quality while stability and productivity of soils and forest ecosystems is decreased.

Large shares of private grazing pasture, low owner financial capacity, limited advisory and awareness and lack of incentives creates serious issues related to sustainable management of pastures in Romania, especially in dry areas of the country.

### **5.2.9 Programs of rural development**

Rural development is a concept that is recently introduced into Romanian policy and practice, and it hardly replaces the centralization ruling and thinking, consequently there are serious needs and efforts for the structural change of communities and individual people, practices for production and processing. The change process is very difficult as population in rural is aged, less educated and open to new policies and instruments, concerned with daily troubles and minimal life needs, based mostly on agriculture and limited type of crops.

Change of approach in rural areas and promotion of rural development based on farms and services improvement is ensured by a large number of projects, but from far the most powerful driver of change are EU pre-accession instruments (like: SAPARD) that allocate substantial funds on the change of rural approach and promote sustainable rural models based on modernizing of farms and services, an actions that will continue after accession based on the structural and cohesions funds.

### **5.2.10 Educational programs, awareness and training**

Educational programs at all levels focuses on the development of integrated approaches of the actions toward the sustainable management. On the other side, awareness of local authorities and people, especially in rural areas, is rather scarce and isolated. Training of professionals from different organizations and institutions or authorities, is also very limited.

### **5.2.11 Development of sustainable agricultural and ranching production systems**

Agriculture is under continuous restructuring as several parallel processes occur: finishing of property restoration on lands (agricultural, forests, etc); improvement of general cadaster for agricultural and forests lands; ongoing process of transformation of former centralized and large areas agriculture to small medium size flexible farms/farming systems; change of subsistence agriculture to market oriented one; implementation of principles of Common Agricultural Policy. Legal and juridical assistance for landowners in rural is under consideration by the Government. Bank credits and insurance systems are available and affordable in rural. National legislation (within the EU integration process) encourages the aggregation of lands; association of owners for better resource management; constructing of products chains; use of human or natural alternative resources.

Large input of machineries and new technologies (for irrigation, cropping, weeding, fertilizing, very productive crops, etc) are available on Romanian market.

New guides for good practical guidelines in agriculture and other land uses and resources were recently promoted (these introduce environmental approach of the crop management), as others are expected.

### **5.2.12 Technical support to fight against land degradation, drought and desertification**

Research projects funded in the National Program for Research, Development and Innovation finalize with technical guidelines that must be approved by the partner institutions or homologated by the national competent relevant authority.

Recent years there have been promoted several relevant guidelines: Technical guidelines for the site classification and afforestation of degraded lands (MAPPM, 1995); Technical guidelines regarding the assortments of species, scheme and technologies for forest regeneration and afforestation of degraded lands (MAPPM, 1995); Technical guidelines regarding the technologies for the afforestation of land affected by erosion and land slides in the South East of the country (ICAS, 2005); Technical guidelines on the technologies for production of seedlings and afforestation of trees and fruit bushes on degraded and marginal agricultural lands (ICAS, 2005).

Code of good agricultural practices, in 2 volumes, published in 2003 is a key document that promotes an updated set of recommendations to be applied by the farmers and agricultural producers to ensure protection of waters against fertilizers pollution and avoid soil degradation, as well as the environment protection. The Code elaborated for the Romania specified conditions, is an important instrument to achieve the seven objectives for sustainable agriculture: 1) assure the growing of crop production and having in consideration the preservation and protection of renewable natural resources; 2) assure the main needs of people in the context of sustainable development; 3) protect the health of people and environment; 4) assure the new quality of growing production processes; 5) assure the preserve and enhance the resources reserves; 6) assure a new technological reorganization and maintaining under control the possible risks, 7) assure the legal measures to apply the scientific research results and development of information services, training and formation of farmers and agricultural producers.

A Code for agricultural and environmental good practices elaborated accordingly with the Council Regulation (CE) no.1782/2003, is under way to be

approved through the common order of MAFRD and MEWM. It provides conditions that all agricultural lands, especially those which are not used for production, to be maintained in good environmental conditions. The minimal requirements for good environmental and productive conditions are developed based on particularities of geographic areas (especially soil and climate), technologies and land use, crops rotation, agricultural practices and structure of exploitation. Based on this code, after the EU integration, in Romania will apply unique scheme for payment on surface (according to the common rules for direct support in the frame of Common Agricultural Policy – PAC) and establish of certain regime of aid for farmers.

Technical staff and services to fight against land degradation are covered by private and state organizations, or even individual persons, but certified and attested by a specific Attesting Commission of the MAFRD. The legislative frame is comprehensive. MO 449/1998 issued by the Minister of Waters, Forests and Environment protection, approve the Methodology for the certification of the physical and juridical persons which perform field studies and elaborate technique-economical documents for the improvement of lands works.

### **5.2.13 Development of early warning systems for drought forecasting**

National Meteorological Administration develops the *Operational Agrometeorological Program* which includes following activities: 1) daily monitoring of agro meteorological parameters; 2) drawing up of *Agrometeorological Bulletins* (weekly weather forecast); 3) information dissemination to users, farmers, agricultural base companies, other publications, mass media (newspapers, TV broadcasts, radio "Village's antenna"), 4) technical recommendations; 5) useful information to achieve the agricultural works schedule and to diminish the losses caused by agro meteorological extreme events, including the agricultural drought.

All types of meteorological and agrometeorological information is referenced over particular agricultural regions and on types of cultures, are validated and managed upon informational modular programs built on data structure, which integrates in the *Agrometeorological Monitoring System*. This system assures a daily collection and compilation, under an operational flux, of agrometeorological parameters, and it represents the basis of information needed to compute specific indicators for the assessment of the vegetation condition of cultures over one agricultural year. Processing and interpreting of the meteorological data is achieved using specific applications, like AGRO-SYNOP, AGROSERV and AGRO-TEMPSOL. Agrometeorological data represents information generated by agrometeo stations (a number of 55 stations) within the national meteorological network, relevant for agricultural area of Romania. The observation program regarding the humidity of soil relies on 55 meteorological stations, as well, and it is achieved at the regional level in Regional Meteorological Centers by the specialists, on decade basis. Afterwards processed regional information are transmitted to the Agrometeorological Group in the headquarter of the ANM in order to establish the humidity reserve accessible for crops, like maize and wheat, using a model of water balance in soil. Over the year 2005 it was continuing the modernization of network with 30 new field systems for measuring the soil humidity. Currently entire humidity measurement system counts 52 field systems which ensure the monitoring water supply of soils over the active vegetation season of agricultural crops (March-November). Data regarding the water reserves of the soils are measured directly with sensors located in specific plots (permanent standard platforms and experimental fields), representative for cereals crops, like wheat and maize. All information included in weekly Agro meteorological Reports ensure the monitoring of the vegetation conditions of crop species, vineyards and orchards, in the areas vulnerable to meteorological extreme events, particularly agricultural drought.

### 5.2.14 Monitoring and assessment of desertification

National Institute of Statistics collects and provides data regarding the assessment of evolution of general situation regarding land degradation, as is showed in the next table (at the end of the year 2003, INS, thou. ha):

Quality class	Total agricultural	Arable	Grazing and hayfields	Vineyards	Orchards
I	917	855	51	10	1
II	3041	2647	311	60	23
III	4756	3335	1263	76	82
IIII	3943	1766	2007	75	95
V	2060	811	1213	10	26
Total	14717	9414	4845	231	227

Currently, INS is implementing a new system, Structural Agricultural Investigation, which will offer statistical data regarding farms and collective farms (general information, land use, income and support, irrigation and fertilization, livestock, number of employees etc.), correlated with the UE investigation system.

*National system for the monitoring of the forest vegetation and a system for soil-land monitoring* was set based Law 444/2002 for establishment and financing of the national system and OM 223/2002 for the approval of the Methodologies of soil and agrochemical studies, covers all the country, including areas under drought and land degradation. The purpose of the system is to provide actual data on the soil quality and measures to restore them, and land use status and trends. These systems financed annually from the state budget through MAFRD, as two research institutes carry out the specific field and processing works. The network relays on a grid of 16 x 16 km, with 670 plots for soil and agricultural land use and 470 plots for forests, where usually basic observation are performed (level I), and intensive observation, level II, in specific areas (eroded lands, conservation areas, polluted areas).

## CHAPTER 6. FINANCIAL TOOLS AND MECHANISMS

At national level there are several instruments that finances works related to improvement of degraded lands as well as offer opportunities for rural development.

GO 81/1998 provisions that the afforestation works for the improvement of degraded lands may be based on the following sources: a) fund for improvement of land, established by Law no. 18/1991(republished), b) allocations from the State Budget, according art.no.88 of the Law no.18/1991, c) allocations from the local budget of the communes, towns, municipality and districts, d) sponsor's trading companies, e) external financial non-reimbursable sources or external loans on the long period, f) voluntary contributions of the natural or legal persons interested in land improvement works, g) Forests Conservation and Regeneration Fund, constituted according Art.63 from the Law no. 26/1996 (managed and used on land by the National Forest Administration - Romsilva), h) legal duties owed by natural and legal persons, culpable of the soil degradation, as established by the court, at the request of local and central units from the agriculture, forestry or environment protection. Law 18/1991 establishes the Land Improvement Fund, with the purpose to fund degraded lands reclamation, with two destinations: a forest sections and an agricultural section. A ministerial order of MAFRD, issued 2002, approved the Methodological norms regarding the establishment and use of Land Improvement Fund with forest destination. Supply of the Fund is being made from following sources: a) tax (stipulated in Annex No.2 to the Law 18/1991, republished with latter changes and supplements), on the change of forest land to other lands in the case of non-compensation with other land for afforestation, b) tax amounting to a equal value

of wood at official harvest age for the main tree species corresponding to the site, c) an amount of money equal to the expenses necessary to reclaim the land temporarily removed as to bring it in a status able to be afforested.

Law 213/2003 on the stimulation of the investments in the agriculture, Government settles down a *Fund for the crediting of the investments in agriculture* in order to stimulate the investments in agriculture and processing, storage, preservation and trading of products, as well in others sectors with agricultural specificity. The fund is at the disposal at the MAFRD, and under its administration. Fund is supplied with specific budgetary allocation, from reimbursed amounts and interest rates paid by crediting institutions. Fund destination is: a) loans to individual farmers (if registered in the Register of Agricultural Farms/Exploitation), familial or farmers associations, private agricultural societies; b) covers the costs of project proposal preparation; c) grants, computed as a percent from the loan given to beneficiaries; d) co-financing of projects funded from non reimbursable amounts; d) co-financing of projects funded from loans. Fund is accessed by selected banks, agreed on a transparent public bid, each of them is allocated with a certain share of the total amount available in the fund. The refund period is max 10 years with a grace period 1 – 5 years, according the project type. Amount, refund duration, interest rate are negotiated between the bank and the beneficiary. Credits may be guaranteed by different goods, certificates, mortgage as suitable for the specific bank. If the project performs as the business plan a benefit a max 20 % of total credit may be granted to the creditor, under strict decision of the Government at the proposal of MAFRD. Amount left unused at the end of the year are carried forward in the next year. Based on this a national program, "Fermierul", is open for application in the current year.

Law 166/2002 on Agricultural Farm establish a) the minimal dimension for agricultural farm, b) either commercial or familial farm must be administrated by technically and economically personnel; c) farm are granted with product based subsidies, for those products agreed and listed by the Government on every agricultural year; d) benefits of investments facilities for machinery, technological buildings, irrigation, environment protection, perennial crops, etc.; e) farms and storing spaces owners are granted with aids; f) advance payment of max 30 % of contracted quantity of products; g) access to mortgage credits, h) family farms benefit of free consulting and extension services; i) special laws may be promoted for ecological agriculture practiced by family farms; j) legal processing of documentation to establish a farm is free of charge. The expenses related to this law are covered by state budget.

Almost every year the Government adopts GDs that provision measures to list the species and the financial aid for domestic production of certified origin; annual aid to support the soil works and payment of diesel for soil works; support of producers from the state budget to purchase new agricultural machinery; subsidies for producers from vegetal sectors with the purpose to increase the quality and yield.

Law 247/2005 on the reform of properties sets up an agricultural life annuity with the purpose to consolidate agricultural land, toward efficient and modern agriculture, approaching the EU ones. Amount of life annuity rises to 100 Euro/year/ha for sold land and 50 Euro/year/ha for rented land. Life annuity is guaranteed by the state and it is granted only to persons older than 65.

Environment Fund is a fund administrated in decentralized manner by the Environment Fund Administration, under the Authority of MEWM. EF is a public fund, deductive from fiscal point of view. Incomes are of public origin that belongs to general consolidated budget of the state (Law 105 /2006). Its incomes are: a 3% contribution to sell of iron waste; tax on polluters, tax on use of land for storing of non recyclable waste; tax of 1 RON/kg (3.5 RON=1 Euro) of the package imported or introduced in the country; 2 % of the value of the substances that are considered dangerous for the environment (listed); 3 % on wood harvesting or wood products; 1 RON/kg of tyre; 3 % from the amount paid for the administration of hunting funds, etc.

In case of use of recyclable waste as secondary staff in the production process (at least 50 %) the economic unit is exempt from the payment of above mentioned taxes. The fund is open for the financing of priority projects for environment protection, as among the eligible activities are: mitigation of the impact on the atmosphere, waters and soils; increase of renewable sources of energy; mitigation of the green house gases emission; ecological restoration and sustainable management of the forests; afforestation of degraded lands; works designated to prevent, eliminate or mitigate the effects of heavy meteorological events.

**Annex 1**

**Composition of the National Committee to Combat Drought, Land Degradation and Desertification**

<b>Member legal status</b>	<b>Name of the member organization</b>	<b>Area of action in the frame of UNCCD</b>
Ministries	Ministry of Agriculture, Forests and Rural Development; Ministry of Environment and Waters Management; Ministry of Administration and Internal Affairs; Ministry of Public Finance; Ministry of Transports, Construction and Tourism; Ministry of European Integration; Ministry of Education and Research	Legal, policy, strategy
Academic	Romanian Academy; Academy of Agricultural and Forest Sciences; Social and Economic Council	Strategy, plans and coordination
Implementing organizations	National Forest Administration; National Society for Land Improvement ; National Administration Romanian Water; National Administration of Meteorology, National Agency for Cadastre and Estate Publicity	Forests administrators, Land Improvement in agriculture; Water supply; Meteorology and climatology research, databases, scenarios; Cadastre and maps
Research and extension institutions	Forest Research and Management Institute; National Institute for Pedology and Agrochemistry; National Institute for Research and Development for Environment Protection; Institute for Studies and Projects for Land Improvement; Aquaproiect; Institute of Geography of Romanian Academy; Institute for Research and Development in Agriculture Fundulea; Station for Research and Development for Irrigation and Drainages Baneasa Giurgiu; Institute for Cadastral Survey, Geodesy, Fotogrammetry and Cartography; Institute for Research and Development for Lawns Brasov; Institute for Research and Development for Potatoes and Sugar Beet; Institute for Research and Development for Maracineni; Institute for Research and Development for viticulture and wine growing Valea Călugăreasca; Station for Research and Development for agriculture Brăila; Station for Research and Development for Plants Cultures on the sand Dăbuleni; Central Station for Soil Erosion Mitigation Perieni Vaslui; Station for Research and Development for Agriculture Valu lui Traian	Research on the natural resources and environment status, Management, improvement and planning, Effect of change on natural resources and environment
Universities	Craiova University; University of Agronomical Sciences and Veterinary Medicine Bucharest (Faculty of Land Improvement and Environment Engineering ); University of Agricultural Sciences and Veterinary Medicine Ion Ionescu de la Brad Iasi, University of Agronomical Sciences and Veterinary Medicine of Banat Timișoara; University of Agronomical Sciences and Veterinary Medicine of Cluj Napoca; University of Bucharest (Systemic Ecology Department and Geography Faculty); University of Brasov (Forestry Faculty); Technical University for Civil	Teaching, extension in land management and improvement



	Engineering Bucharest (Faculty of hydrotechnical); University Ovidius of Constanta (Faculty for Civil Engineering); Technical University Gheorghe Asachi (Hydrotechnical Faculty); Technical University Timișoara (Hydrotechnical Faculty)	
Other committees	National Committee for Irrigation and Drainage	Irrigation advice for the Ministry of Agriculture

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