

NATIONAL CONSULTATION DIALOGUE in Romania

1. General Data

<u>Country:</u>	Romania
<u>Organizer:</u>	GWP Romania
<u>Date & Place:</u>	27th February 2014, Bucharest, National Meteorological Administration (NMA)
<u>Participants:</u> (name & institution & email)	<p>36 participants from the following institutions:</p> <p>GWP Romania: 2 participants Ministry of Environment and Climate Changes: 3 participants Research and Development Institute for Plants Protection: 1 participant</p> <p>National Research and Development Institute for Soil Science, Agro-chemistry and Environment -ICPA: 1 participant</p> <p>National Meteorological Administration: 19 participant as follows:</p> <ul style="list-style-type: none"> • Agro meteorological Laboratory Bucharest: 4 • Meteorological Service – monitoring systems : 2 • Teledetection and Satellite data receiving and processing Laboratory : 3 • Climatology compartment : 4 • Directors -Heads of units from country sides: 4 • CNPM : 2 <p>National Institute for Hydrology and Water Management: 4 participants National Administration “Romanian Waters”: 2 participants Romanian Academy’s Institute of Geography: 2 participant Environmental Protection Agency of Covasna: 2 participant The name & institutions & e-mail & signature are in the attached list of participants</p>
<u>Attachments:</u> (attendance list, photos, etc.)	attendance list, photos, presentations, financial report

2. Agenda

Objective:

- to identify key stakeholders and gather together experts from the different institutions dealing with drought issues
- to disseminate general information about objectives of the IDMP in Central and Eastern Europe
- to provide detailed information on activities in which Romania participate (Activity 1.2, 2.1, 2.2) or are involved (Activity 1.3, Activity 5.1, Activity 5.4)
- to gain information regarding availability of drought related data (e.g. data on drought impacts, projects, studies)
- to open the discussion (national dialogue) about drought policy and current status of preparation of the Drought Management Plan in Romania

Agenda – presentations:

- 1) Opening the seminar (Elena Mateescu – Scientific Director of NMA, Liviu Popescu – GWP- RO, Florinela Georgescu – Head of Forecast Department - NMA, Gheorghe Stăncălie – Technical Director and Head of Teledetection Unit -NMA)
- 2) Presentations(all attached to report):
 - Liviu Popescu: *Integrated Drought Management Programme in Central and Eastern Europe – general presentation of the project and its objectives*
 - Elena Mateescu: *Changes observed in the climate regime and the drought effects on Romanian agriculture*
 - Liviu Popescu: *Integrated Drought Management Programme in Central and Eastern Europe – activities in which Romania is involved 1.2, 2.1, 2.2, 8.1*
 - Elena Mateescu, Daniel Alexandru: *Decision Support System/DSS for drought management and prevention measures for impact upon agriculture reduction*
 - Gheorghe Stăncălie: *Satellite techniques, based indicators for monitoring the drought phenomenon and some applications in agro-meteorology (Activities 5.4, 1.3,)*
 - Olga Vizitiu, Catalin Simota : *Policies related to the drought effects management at European, Regional and National level*
 - M.J. Adler, Silvia Chelcea Mihai Barbus, Doina Drăgușin: *Climate change impacts on hydrological regime in Romania*
- 3) Supplementary information:

- GWP Leaflet: *Integrated Drought Management Programme - Building drought resilience to support global poverty reduction*
 - GWP Brochure: *Global Water and Climate Programme*
 - GWP Briefing Note: *Global Water and Climate Programme (WCP)*
- 4) Discussion, conclusions

Main points of discussion:

- Activities included in IDMP, Romanian study
- Relevance of droughts in Romania,
- Current drought policies in Romania,
- Key stakeholders, institutions, experts,
- Availability of the drought impacts data

3. Report

The seminar was divided into three parts, excluding the opening part :

- 1) In the opening speeches Liviu Popescu (representative of GWP Romania) and Elena Mateescu (representative of hosting institute – NMA) welcomed the participants and informed them about the objectives of the seminar and expected main result of the project: “A Guideline for Integrated Drought Management”. Florinela Georgescu (NMA) and Gheorghe Stăncălie (NMA) have emphasized that indeed Romania needs such a project and needs to develop a Drought Integrated Management Plan in the future, because more and more results from similar thematic projects shows us that Romania, especially in the South and South-East areas, suffers from drought.
- 2) In the first part of the seminar Liviu Popescu has introduced the GWP /GWPCEE and GWP-Romania as NGO institutions, structure and governance, type of activities, GWP Strategies, present, and new one for 2014-2020 ready to be launched this days. Through its presentations were also introduced the main information about the project. More detailed information was provided on the activities in which Romania had the responsibilities; mainly in activity 1.2. - the aim of collecting multiple types of data, with the harmonised regional questionnaire support, from all 10 CEE countries and information for a future guidelines development (activity 2.1.). Also scope and main outcomes expected to be gathered within the National Consultation Dialogues held in each country was presented.
- 3) The representatives of NMA presented the observed changes in the climatic condition and the drought effects on agriculture in Romania and other life sectors. Elena Mateescu underlined that for this report NMA and ICPA worked very well together and they managed to develop several conclusions. It showed up that Romania’s medium temperature grew in the last decade by 0.5°C compared to 1901-1980 and following years. Also, taking into account other types of indicators like annual and seasonal rainfall amount, soil moisture reserves, etc. all these clearly shows that Romania has a decreasing trend in water additions in comparison with decades before 2000. Most vulnerable to drought are south and south-eastern areas of

Romania where the agriculture is one of the main supports to the people living in this area. Concerning the situation of the current drought policies in Romania, Elena Mateescu presented that the Romanian Government is assisted in taking decisions on drought, land degradation and desertification issues by the interdisciplinary National Committee to Combat Drought, Land Degradation and Desertification, which is a consultative body. This Committee is coordinated by The Ministry of Agriculture and Rural Development while some other ministers' representatives are in its Steering Committee.

- 4) In the second part of the seminar discussions were focused on the Activity 1.2: Review of the current status of the implementation of DM plans and measures within RBMP according to EU WFD. The questionnaire was presented including its components and main questions. Here the participants wanted to know to whom the questionnaire was sent and who answered the questions, what will happen and what will result from it. Many of participants shows interests in having access to the final report.
- 5) Elena Mateescu presented the main results of the report prepared and submitted within the Activity 5.4 - Decision Support System on Drought Management and measures identification for prevention and mitigation in agriculture. The report contains an inventory of drought measures (indicators) that are applied to evaluate drought impacts and vulnerability to drought in Romania and also in other countries involved in the project.
- 6) In the third part of the seminar more technical presentations were held, with the role of underlining at what level and how obvious the impact of drought is in Romania. So, Gheorghe Stăncălie (NMA) presented the *Indicators for agriculture drought monitoring based on satellite techniques*. Here were described a large list of indicators that are monitored and used: Broadband structural vegetation indices, Canopy Water Content and Moisture Indices, Physically-based vegetation state indicators, Indices obtained from the interpretation of LST-NDVI space(satellite data and images), Soil moisture indicators and Snow cover also containing data of snow water equivalent indicators based on optical and active radar (SAR), passive microwave (MW) satellite data. The multi-annual satellite data series allows the overlay and crosschecking of droughty, normal or rainy years.
- 7) With regard to information available in Romania, ANM has listed following indicators and the information support made on the bases of results:
 - Agrometeorological indicators: Soil moisture reserve, heat waves, rainfall amounts, ETP, weekly/monthly and seasonal agro-meteorological bulletin (diagnosis/forecasts), dedicated agro-meteorological reports for multiple categories of users
 - Climatological indicators: SPI
 - Indicators based on satellite technics: NDVI, fAPAR, NDDI, etc.

These indicators are used in the Agro-meteorological Bulletins which are developed weekly, monthly or seasonally. The weekly Agro-meteorological Bulletins includes the specific information (air and soil temperature, rainfall, ETP, soil moisture, crop water requirement) and are needed for assessment of drought occurrence. These data which are collected from the National Observation Network (158 meteorological stations and 55 agro-meteorological stations) are analyzed and compared with the critical thresholds in order to evaluate the threat and make recommendations to decision-makers and farmers. The agro-meteorological bulletin is disseminated to Presidency, Government, Ministry of Environment and Climate Change (MECC), Ministry of Agriculture and Rural Development (MARD) for informational and decisional purpose. For the general public the information is disseminated through mass-media. Periodical broadcasts (i.e. "Village Life") are made at the public radio and through television which is having nationwide coverage and targeting rural audience. Articles for specialized publications and magazines are disseminated weekly and monthly in electronic format (www.agriplus.ro; www.revista-ferma.ro;

<http://www.gazetafermierului.ro/>).

The uses of all indicators have as results:

- maps at national/regional level with the Point values
 - maps with the soil moisture which are delivered weekly and containing agro-meteorological information and seasonal forecasts which are updated daily according with the flow operational activity and can be found free on the NMA web-page (www.meteoromania.ro).
- 8) ICPA representative presented the European Regional and National Drought Management Politics. Some of the indicators used for the implementation of agricultural and environmental policies in Europe are: Bagnouls-Gausson Index, Length of Growing Period Index, Crop Yields Index and Water Deficit Index. As a final conclusion of the presentation is that the decision makers should not use only one type of indexes, they should combine the results for all of them and only then be used as criteria in designating areas affected by water scarcity.
- 9) NIHWM representative presented the Impact of Climate Changes on Hydrological Regime in Romania – Dobrogea case study, which is a south-east territory between the Danube and Black Sea. Final conclusions of the presentation were:
- the frequency of moderate drought in the period 1991 - 2011 compared to the first period of analysis (1970 - 1990), is much larger and prevailing at the stations in northern and north-eastern Dobrogea area
 - temporal variation of piezometric levels of ground waters showed an increase in levels between the period 1975-1990, under the influence of intensive irrigation, after which there is a gradual decrease in their amplitude. In the periods 1999 - 2001 and 2006 - 2011 in all of them, there have been recorded the lowest depths of piezometric levels.

Additional information was provided on the project activities and future steps during the discussions also. The stress was put on the involvement of other key stakeholders (nature protection institutions, NGO). Also some recommendations for data collection were provided by the participants.

4. Conclusions

Outcome of the public consultation:

- The participants welcomed the initiative of GWP CEE focused on drought, activities included in IDMP and intentions to identify diversified solutions on how to solve these problems, on the bases of cooperations between the Central and Eastern Europe countries.
- The representatives of the participated institutions expressed their support for the project activities and promised to provide an expert assistance (consultations, data and comments).
- On the basis of presented data, the drought is considered as a relevant issue in our region. Therefore the drought should be included into the planning process with the aim to prepare Drought Management Plans as additional components plans to the complex River Basin Management Plans which is also in accordance with Water Framework Directive and its special recommendations for the second development cycle presently under development.
- It is not so clear what is happening with transboundary areas, how will drought be managed

there? This project should have some recommendations for this type of areas. There are transboundary acting institutions for climate like Drought Management Centre for South Eastern Europe located in Slovenia, ICPDR for Danube basin, etc and they can successfully cooperate for the whole mentioned region.

- A special attention should be given to the water quality because drought has a high impact on that also; for example nitrates and nitrites concentrations reaching extremely high values mainly in rural areas that were identified, but in many cases the measures for reduction are not taken at local level which is mainly due to the lack of finances and /or weak decisions from governments.
- A special attention should be drawn to the interconnection of water quality and human health. It is envisaged to involve in the future dialogues, representatives from the Ministry of Health and some representatives of local municipalities as well.

Proposals for further steps:

- to take into account drought impact on water quality and local water users
- to send written application to the Ministry of Health asking them to propose representative for future dialogues
- to arrange the next seminar when projects results will be produced - they need to be first shared with all affected sectors and also with the decision makers to implement the recommended proposed solutions