SECOND NATIONAL CONSULTATION DIALOUGE in Moldova

1. General Data

Country:	**Moldova**
Organizer:	GWP Moldova in cooperation with NGO "ECOSTRATEGII", Institute for Soil Science of Molodva
Date & Place:	**16th December 2014, Chisinau, Moldova**
Participants: (name & institution & email)	51 participants from the following institutions: - GWP Moldova - Local rural administrations - Ministry of Agriculture - Research and Design Institute for ter Management - National Institute for Soil Science and Agrochemistry - Instiute of Ecology and Geography - Civil Society organizations - Agricultural University of Moldova The name & institutions & e-mail & signature are in the attached list of participants
Attachments like: Attendance list, photos, etc.	Poster (same as for Romania), Invitation, List of participants, pictures, Agenda, invitation

2. Agenda

Objective :

Main objective of the event was to discuss results of the consultation meetings organized during 2014 in different parts of the country. Presentation of the Guide for moisture conservation in Moldova and provide national practices on moisture conservation in soils to be included in relevant guide for farmers (guide is going to be published in Russian and Romanian languages and this could be used in Ukraine as well (in the frame of the activity 5.6).

Specific objectives:

National dialog served as a discussion platform for sharing best moisture conservation practices among participants of the event, presentation of the guide in order to have a feedback from participats on its content and practibility, to discuss main options for drought management in Moldova and how it could be incorporated in development of local agendas:

- to gather the national practical experiences on soil moisture conservation practices according to the provisions of the activity 5.6 and maps on agro-zonning performed for the Dniester river basin;
- to summarise proposals and comments obtained in the frame of the small groups discussions on the guide for farmers and proposals for planning of the moisture conservation and drought management activities in Moldova;
- to contribute to the preparation of the final recommendations for development of local agendas in regard

to drought management.

A number of materials were used for the presentations for the event:

1. E. Kuharuk, O Cojocaru. Sustainable use of the soil resources for the plants. Journal of Botany, vol. VI. Nr. 29, Chisinau, 2014
2. E. Kuharuk, A. Panus. Soil management to minimize erosion process, Black sea conference, Tigina, 2014
3. Annual statistic of the Republic of Moldova, 2010-2013
4. National strategy on adaptation to climate change, Chisinau, 2014
5. M. Nedealcov. Climate atlas of the Republic of Moldova (Climate indexes in the Republic of Moldova), Chisinau, 2014

Basic information used for consultation dialog from hydro-meteo officee: trends in temperatures and precipitations. Data on moisture content in soils under different agricultural crops. Indexes calculated for Moldova on climate change based on the data from hydrometeorological stations in Moldova.

3. Report (max 3000 characters)

The dialog started with the welcoming speech from the representative of the Ministry of Agriculture – Dumitru Bratco. He welcomed participants and expressed interest of the Ministry in development of practical recommendations regarding drought management. According to official data drought in 2012 led to the losses in agriculture in Moldova around 2 bln MDL (1 euro = 18 MDL). In this context actual project has a big importance for Moldova and relevant recommendations should be included in local agendas for rural development.

Welcome speech was also made by Dumitru Drumea, GWP Moldova. He told about GWP IDMP CEE objectives and presented main outcomes of the activity 5.6. Presented maps on agroclimatic zonning for the Dnester river basin showed main features of main zones for agricultural activity in the Dnester river basin. Based on the maps Ministry of Agriculture as well as local rural authorities could better plan drought management activities and implement them. Participants of the event outlined necessity of such maps and discussed opportunities for planning of moisture conservation measures based on the results of the agrozonning performed in the frame of the IDMP CEE for the Dnester basin.

It was also outlined that such maps have to be used in the development of the programs and project files for the implementation of the National Strategy for adaptation to Climate Change, recently approved by the Government of Moldova. Ministry of Agriculture as the main authority responsible for implementation of the drought management activities should prepare a set of instruments for risk assessment to this natural phenomena based on the agrozonning of the Dnester river basin and develop preparedness of the sector to droughts. As it was mentioned during the event actual capacities of the scientific organizations to provide data on moisture content and conservation of moisture in soil are limited due to financial resources. Nevertheless data exist and theirs' availability for different users should be more open and used for decision support process.

Also ain conclusions from consultation meetings with local authorities in rural area organized by GWP Moldova in July 2014 were presented. Read more about the meeting here: http://www.gwp.org/Global/GWP-CEE_Files/Regional/IDMP-Consultation-meeting-with-stakeholders-MD.pdf

Another issue of concern was discussion on the content and structure of the guidance for farmers and rural authorities on moisture conservation and drought management. Analysis of the existed capacities to respond to droughts in rural areas was also discussed and authorities reported mainly capacities to construct some bodies for collection of the precipitations. They also told on necessity to construct green protected belts on agricultural lands and for these purposes they need recommendations, which should be included in the action plan for implementation of the drought management plans. Electronic version of the poster translated in Romanian language (GWP Romania) was also presented during the event.

Small group discussions were aimed at development of practical steps for implementation of the drought management activities in Moldova and participants proposed the following:

- to include drought management issues in the plans of activity of the Ministry of Agriculture and thus to include relevant activities in the working programs of sectoral agricultural authorities working in the countryside;
- evaluate experiences accumulated in Moldova and Romania (south-eastern part) on drought management, soil moisture conservation, crops rotation, construction of protected green belts as a tool for combating erosion and sustainable use of soil fertility;
- to develop management tools based on legal instruments, policies etc. and thus assure implementation of best solutions aimed on preparedness for droughts, develop financial mechanisms for drought mitigation and implementation of relevant measures including covering of damages impacts on farmers and other stakeholders;
- improve planning practices as a tool for attraction of best practices, investments, implementation of new technologies etc. in rural development and preparedness of different stakeholders and institutions for drought events;
- continue creation of maps on zonning based on the use of SPI as a tool for development of planning practices and action programmes aimed at reduction of the impacts of droughts.

Participants of the event appreciated very high results obtained in the frame of the project and pledged for its efficient implementation through planning of local agendas and development of relevant investment portfolio. They also expressed theirs' commitment to cooperate in the frame of the project and contribute to its implementation on local level with involvement of relevant stakeholders working in rural localities.

4. Conclusions

On the base of presentations and discussions during the 2nd national consultation dialog, held in Chisinau on 16th December 2014 a number of conclusions were made in order to develop drought management activities in Moldova. According to participants there is a poor practices on planning of relevant measures on national and local level and capacities of local institutions to do these activities are very poor and need to be improved. Risk assessment associated with the droughts have not been developed, but such activities are needed for implementation of the national strategy on adaptation to climate change recently approved by the Government. Classification system for identification of the quantified parameters of droughts gravity should also be developed. It should be based on the analysis of capacities of existed institutions, which could be involved in such issues. This activities could meet difficulties due to lack of relevant experiences. In this context actual project presents a great opportunity for different level of authorities and could lead to better planning of drought management. A limited data needed for this are available, but theirs diversity should cover such issues like regularly measurements of moisture in soil, new technologies in crop cultivation, evaluation of effectiveness of different practices for soil moisture conservation etc. Sharing of relevant information was recognized as a priority. One of the tools for

successful implementation of the drought management activities could also be including these issues in the river basin management plan, which is actually being developed for the Dniester river basin.

Brief information about actual status of production of DMP:

Main producer of data needed for agrometeorological observations is Hydrometeoservice of Moldova. Data on temperature, precipitations etc. are collected and analysed. They are published in annual statistic of Moldova and could be available for different users. Extremely weather events are also presented together with the data on damages caused by droughts (2003,2007 and 2012).

Proposals for further steps focused on elaboration of DMP:

Planning of drought management activities in local agendas, thus improvement of the preparedeness of relevant stakeholders. In addition to it a forecast practices based on monitoring should be improved. So as early warning system on droughts is poor developed in Moldova, this should be a priority for relevant authorities. Development of thematic maps and atalases should be continued on a permanent base.

Templates for elaboration of the national experiences included into Annexes of the Guidelines

Annex I: Examples of the national methodologies for assessment of historical drought

Country: Moldova

Indicators used for the historical data assessment:
There are no special indicators for the drought assessment in Moldova. Estimation on droughts is based on the estimation of max temperatures, precipitations and loss of agricultural crops. In addition to historical data on provisions of population with the food (foamety) is also used as well as observations on the river flows recorded in different documents (no special measurements).

Short methodology of assessment of long-term series of meteorological data or picture illustrating evaluation of the historical data for the chosen parameters/indicators:
Trend analysis is used for assessment of the tendencies based on the meteorological data. Smooting analysis is also used for evidence of the ciclic components of climate change. Metorological data for this are available from the archives of the Hydrometeorological service. Data are stocked in electronic format in excell, stagraphics centurion XV.

Annex II: Examples of the national drought indicator systems

Country: Moldova

Parameter/indicators included or proposed into the national drought indicator system:
Izu (Nedealcov, 2012, index of the dry period), parameters used present ratio between sum of the dry days in the period May-August, compared with the multiannual average. Criteria for the dry day are considered days when relative humidity of the air less or equal 30%, temperature diurnal more than 25 degrees.

Methodologies used for evaluation of the chosen parameters/indicators:
SPI – indicators in the evaluation of the droughts
Izu developed by M. Nedealcov and which is used for evaluation of the dry periods and based on temperatures in the period May-August (number of days with T > 25 degrees) and measurement (data) on the air relative humidity (number of days with Ur < 30%).

Annex III: Examples of the national drought classification and early warning systems

Country: Moldova

Indicators included into drought warning system:
Such system is not developed in Moldova

Thresholds for chosen indicators for four drought stages (normal, pre-alert, alert, emergency):
to be evaluated based on national data. There were no studies on this issue in Moldova before

Answer on questions:

- *is monitoring system sufficient for running of early warning system or requires upgrading ?*

Data, which could be used for warning system seem to be exist, but no studies taking into account local conditions (relief, river network, vegetation etc) have not been undertaken

- *are there technical means available for timely dissemination of warnings?*
  No
- *How often should be actual data updated – daily or weekly?*

According to the opinion of local experts these data should be daily.

Annex IV: Examples of national organizational structures to deal with drought

Country: Moldova

Competent authority:
Ministry of Environment in cooperation with the Ministry of Agriculture. Research activity based on data obtained from Hydrometeo service are subject of the Academy of Sciences (Institute of Ecology and Geography, Instiute for Soil Science*)*

Proposed composition of Drought Committee indicating involvement of all actors on three levels:

- *governing level* – Yes, with involvement of representatives from above mentioned levels
- *professional level*
- *affected stakeholders*

Schema of organizational structure for drought management is recommended:
to be developed by Ministry in cooperation with Institute of Ecology and Geography

Annex V: Examples of national program of measures for preventing and mitigating drought

Country: Moldova

List of the measures identified on the base of the national situation in drought management structured at least into three groups:

- *organizational*

Developing of the institutional tasks for drought management based on EU experience. Preparing of the financial allocations for functioning of the drought management structure with estimation of the costs, personnel, equipment etc. Most probably such structure should be near Hydrometeo Service

- *operational*

budget allocations,
data exchange and processing
development of relevant methodologies in cooperation with EU institutions working in the region

- *preventive*

evaluation of existed experience on management of the drought structures (Danube river basin countries)

The example how to develop program of measures is provided in Annex V of the Guidelines (Slovak proposal)

Annex VI: Examples of the national research programme supporting drought management

Country: Moldova

List of suggested actions for the national research program supporting drought management (eventually supplemented by short description of the action):

Development of the applied research program for the drought management, which will include monitoring activities, evaluation of historical data, forecasting, development of the indexes used for droughts evaluation, data on soil and water quality, erosion, forestation etc.