

DMCSEE Expert meeting → “Drought monitoring tools - National needs & collaborative opportunities”, 13 November 2024 → group discussions:

1) Usefulness and practicality of the presented drought monitoring products:

- How do these products align with your country's existing monitoring systems?
 - *The 2 platforms offer a different approach from the methods that NHMS are using, and therefore improve/add to the existing ones. They provide supporting information to existing national system, and do not act as their replacement/competition.*
 - *DroughtWatch had already been used in Croatia and Slovakia (particularly remote sensing products), they are looking forward to continuing using it in the future if the tool is recovered, as remote sensing products are becoming of high interest, more and more relevant.*
 - *(NM): Data from platforms would add new information to existing national drought monitoring which relies on basic meteorological data and indices like the Standardized Precipitation Index (SPI). While progress has been made, challenges include limited funding and outdated technology, prompting efforts to improve data integration and early warning systems. New sources would help to support clients and perform measures (insurance, farmers). For drought ground-checking also NRN networks would be useful.*
 - *(CZ): Intersucho platform, developed by CzechGlobe, is system for monitoring drought. It provides real-time data on the development and impact of droughts, primarily in Central Europe, and supports agricultural decision-making and drought management. It informs agricultural practices, such as irrigation planning and crop selection and assists policymakers in assessing the socio-economic impacts of drought and implementing mitigation measures (support reimbursement process). They will continue with upgrading the platform with the findings from the project. New data (forest fire and heat alerts) are new topics and Clim4Cast platform could bring more detailed information for national alerts. Network of reporters works well.*
 - *(Slovakia): Intersucho platform, originally designed for the Czech Republic, it has expanded to include Slovakia and other neighbouring regions. It is a work in progress and new information are empowering existing approaches.*
 - *(Croatia): New data will help solve some discrepancies. Data from the new platform will strengthen the national drought alert service and will enhance drought forecast capabilities while addressing challenges posed by differing data sources in the country, such as those from insurance companies, along with their spatial and temporal characteristics. Data from the Clim4Cast platform will be useful for improving*

heatwave alerts and detecting 'fire weather.' More efforts will be needed to synchronize messages from different sources. Additionally, DroughtWatch, which has proven to be very useful with its functionalities, is missing from the current framework.

- *(Austria): Findings from research at TUW could provide additional knowledge to enhance national and regional extreme event alert capabilities. A key question remains regarding the availability of permanent and free- available data sources, such as SWI in DroughtWatch or other remote sensing data and their maintenance.*
 - *(Greece): don't have national monitoring for drought : regional drought monitoring tool from DMCSEE was useful*
 - *(Serbia): drought watch was useful, support of national platforms, (they) have national monitoring for drought, they need product for regional level*
 - *(Albania): hazards (temperature arise, precipitation), they don't have drought monitoring systems : improving data with national and international collaboration : common regional strategy for drought management*
 - *(BIH): they use products from drought observatory center*
- **In what ways could these tools complement or enhance your national drought monitoring?**
 - *Generally, an integrated platform is thought of as beneficial, particularly if it covers data/indices targeting more extremes at once.*
 - *Rich information available in one place: easy access to, switch between, and play around with layouts of various datasets/indices, rich user-friendly features and functionalities.*
 - *Using the products from such an integrated platform triggers further ideas for research, awareness raising, and enables analysis of past events.*
 - *Maps with a greater-than-national extent is beneficial in revealing the "bigger picture" of a particular natural phenomenon, not only localised anomalies, not seeing what they might be a part of.*
 - *Potential for use in N. Macedonia: heatwave indices from Clim4Cast and satellite data from DroughtWatch.*
 - *Mainly forecasting capabilities. Potential use is also in verification of impact data and in comparison with national products.*
 - *DroughtWatch with its functionalities has been useful for various analytical approaches.*
 - *Before assessing the capacity of new platforms, studies on their usefulness, including factsheets, weaknesses, and strengths of the data stored, are needed.*

- *Maps will provide a more detailed view of the region from a global perspective. WMO has suggested placing the platforms on the IDMP webpage.*
 - *(Greece) Need for national monitoring system, regional tool is supporting national one, part of regional tool can be part of national one*
 - *(BIH) Upgrading national monitoring, various drought indicators (example: soil moisture)*
 - *(Albania) Regional tool can be useful for national validation*
- **What challenges do you foresee in integrating these tools with your country's monitoring?**
 - *Many projects address same extremes, and even between themselves they are not aware of the (similar) outputs. Overflow of similar, yet different looking and slightly different indices for seemingly same purpose. Confusing and overwhelming for users, including NHMS's if products do not have clear background available what data and how they have been processed into what is shown in the tool.*
 - *There are many existing platforms addressing similar topics, adding yet another one to the crowded space does not help resolve this confusion, only adds to it. Wish for integration/compilation of data, rather than an additional tool.*
 - *Soil moisture products in these tools do not seem to work well for farmers (user perspective).*
 - *Generally, the public does not distinguish impacts of drought from those of heat stress, or between drought and drought impacts (synonymous terms), or between different types of drought.*
 - *Not clear message who these tools are developed for primarily, who are the users most relevant for their use, and to develop them accordingly (datasets in use, and corresponding level of their appearance, additional information, functionalities etc. for their appropriate understanding, reading and use).*
 - *Harmonization of different data from diverse sources/projects and difficulties to integrate them into national alert systems.*
 - *Data credibility question of some sources which are not according to some national alert protocols (Meteoalarm/CAP/coding systems).*
 - *Communication channel to the stakeholders on national level – one voice from on the country.*
 - *Question of the sustainability of data and tools after project ends.*
 - *Unclear division of responsibilities between stakeholders.*
 - *Serbia have data sharing restrictions (it is easier to share tool than data)*
 - *homogenize approach*
 - *what we have on platform, what we are uploading, whole process needs to be specified*

2) Operational use of regional drought monitoring products:

- Do you plan to incorporate these tools into your institution's operational practices?
 - *Public need/interest in Slovakia and other countries is to have one website to access all products from. Therefore Clim4Cast and DroughtWatch tools should be integrated to/linked from national hydromet. service websites.*
 - *Integrating the Clim4Cast/DroughtWatch platforms into national institutions' websites makes it easier for locals to access the products (they are used to access weather info at weather institution website, or should be), particularly if they are explained in a national language.*
 - *Integration into national institutions' websites also gives the product more relevance (NHMS have/are the authority).*
 - *Incorporating the Clim4Cast/DroughtWatch platforms into national institutions is work in progress*
 - *Partners of Clim4Cast will integrate into national institutions' websites but it is diverse among partners (not all of them are strongly connected with NHMS).*
 - *(Greece) Have many requests from agro field (JRC & DMCSEE)*
 - *(Albania) Monthly bulletin (agrometeo drought - > to use this tools, better evaluation)*
- What improvements would make these tools more effective for your institutional needs?
 - *"Integration" into practical use might be better achieved via clear communication/outreach (not only promotion) to make people aware of supporting platforms.*
 - *Helpful might be video tutorials offering explanation of the platform; short videos (reels) with screen recording how to get to a certain product from the main page. This is suitable also for social media use.*
 - *Products in tools need to be explained clearly (eg. certain drought indices), as they are often misinterpreted (in comparison to soil moisture, which is easily understandable for the users).*
 - *The platforms are highly technical and challenging for the public to understand. For practical use, it would be more effective to offer a simplified version or limit their use to a technical level within the country.*
 - *Adding factsheets, some explanatory material and step by step tutorials (like it was in DroughtWatch).*
 - *(Greece) focus on forecasting (usefulness of Clim4Cast tools forecasting for next 10 days)*
 - *Impacts forecasting*

3) Contribution to regional drought monitoring products:

- How can your institution support the development or maintenance of regional drought monitoring products?
 - *Educating the general public about different types of drought (meteorological, soil moisture)*
 - *Strengthening the application: translating "units" or indices into their meaning for the environment*
 - *(Slovenia) Enhancing products within the DMCSEE network*
 - *(all) Raising awareness and promoting knowledge sharing*
 - *(TUW, CzechGlobe) Providing data and maintaining tools*
 - *to use regional tools to validate national products*
 - *uploading products, common products*
 - *network of meteorological stations (more data)*
 - *Data sharing, meteo/hydro data (local data)*
 - *providing regional and accurate data*