

DROUGHT MANAGEMENT UNDER CLIMATE CHANGE IN THE LOWER MEKONG BASIN

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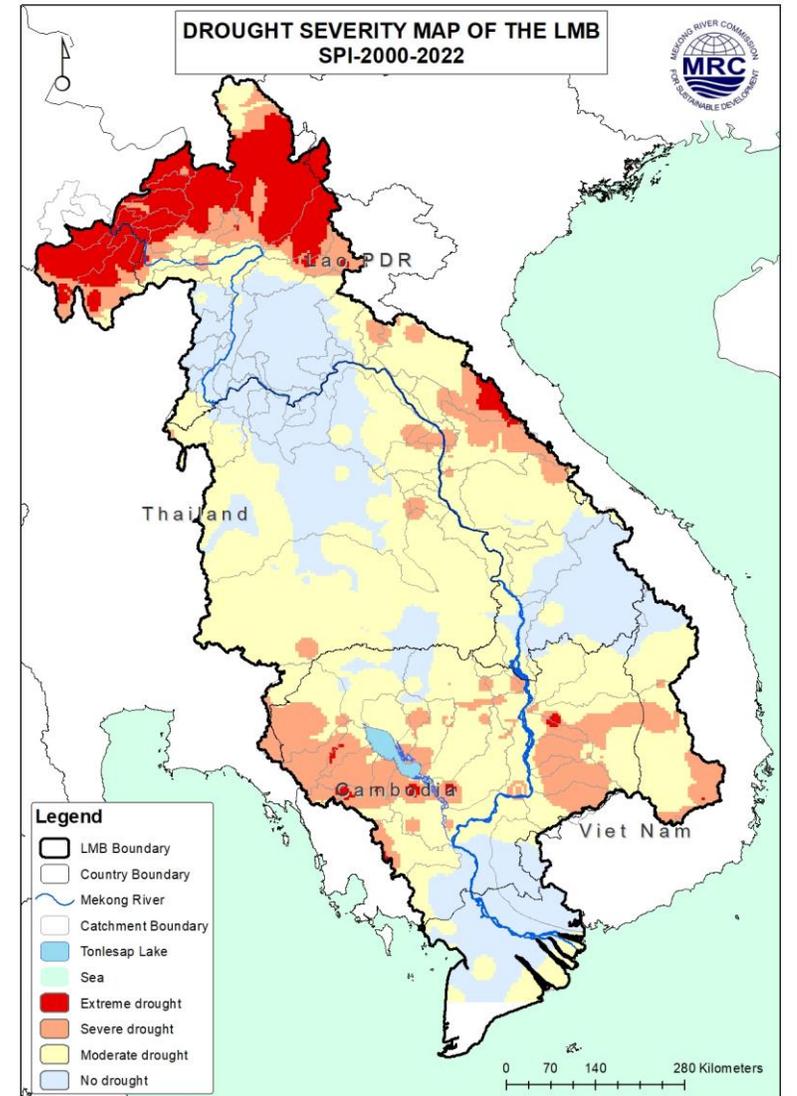


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1. Drought Situation In The LMB

- Drought frequently occurs in the LMB with more severity and higher magnitude causing serious economic impacts to agriculture, economics, environment, people's livelihood, and other water related sectors.
- The most recent drought took place in 2010, 2015-2016, and 2029-2020.



1. Drought Situation In The LMB (Impacts In 2015-2016)

Mekong overview



Impacts of drought on various sectors of MCs during 2015-2016

2. The MRC Drought Monitoring & Forecasting in the LMB

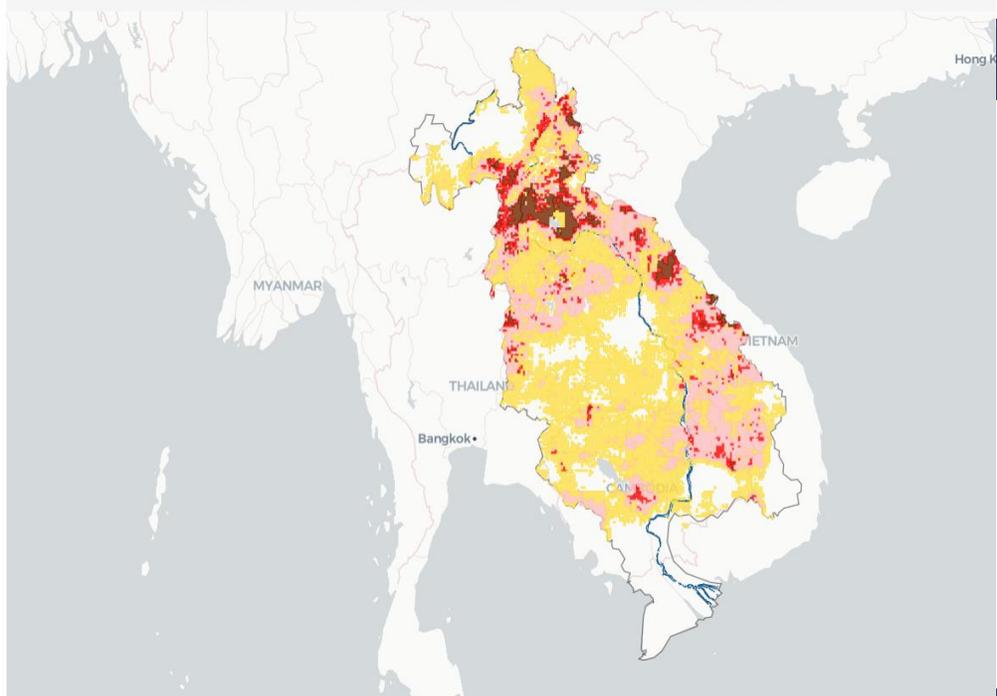
Weekly drought forecasting on MRC front page



Mekong river monitoring and forecasting

TODAY'S STATUS WEEKLY RIVER FORECAST LTA CHART FLASH FLOOD GUIDANCE **DROUGHT FORECAST** RAIN

From May 15 to 21, the LMB is forecasted to be abnormally dry all over the LMB except the lower part of the region covering Mekong Delta of Viet Nam exceptional droughts are likely to hit the LMB during the forecasting week. The northern part is the driest area of the region.

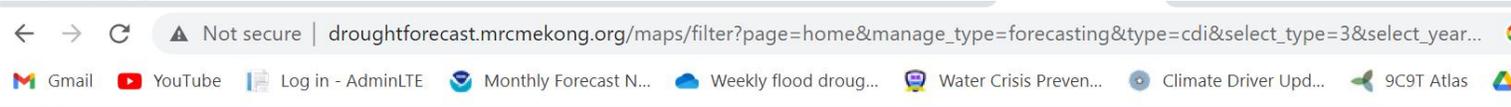


Drought Forecast website

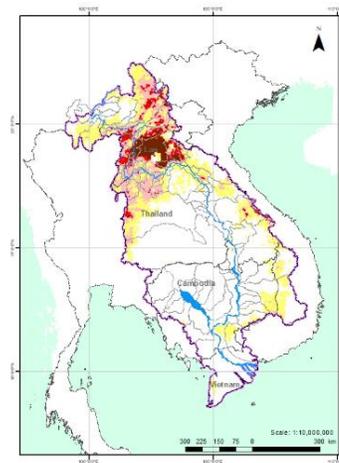
How to read

Weekly drought forecasting on MRC DFEWS

<http://droughtforecast.mrcmekong.org/maps>



Forecasting / Combined Drought Index (CDI)



Drought Forecasting and Early Warning for the Lower Mekong Basin

Forecast for: 14-05-2023

Weekly Forecast Combined Drought Index (CDI)

- D4 (Exceptional Drought)
- D3 (Extremely Drought)
- D2 (Severely Drought)
- D1 (Moderate Drought)
- D0 (Normal Condition)



The drought monitor focus on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Year: 2023 Time type: By week

8 May 2023 - 14 May 2023

This Week's Drought Summary

From May 8 to 14, the LMB is forecasted to be moderately arid. The driest areas are the northern part of the basin, including Chiang Rai, Payao, Bokeo, Luangnamtha, Oudomxay, Phongsaly, Xiengkhuang, Xaysomboun, Borikhamxay, Nong Khai, Loei, Chaiyaphum, Khon Kaen, Nakhon Ratchasima, Sakon Nakhon, Svananakheth, Saravane, Sekong, Attapeu, Kon Tum, Gia Lai, Dak Lak, Cham, Prey Veng, and Ca mau. Luang Prabang, Xayaburi, Vientiane, and Phongsaly are the driest areas. Much below rainfall and dry soil conditions are expected during the forecast period.

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2. The MRC Drought Monitoring & Forecasting in the LMB

MRC also has the Reservoir Assessment tools (RAT-Mekong) which provide bi-weekly analysis of hydrological conditions of some potential reservoirs based on high-resolution satellite data.

The tools aims to assist both flood and drought management activities for MRC Member Countries.

<https://portal.mrcmekong.org/map-service/rsat>

Reservoir Assessment Tool (RAT-Mekong)

3. Coordination & Support among MRCS with MCs

MRCS provides the following coordination and supports to MCs:

- Capacity building to MCs on drought monitoring and forecasting tools
- On-the-job-trainings to the MC's Associate Flood and Drought Forecasters
- Support MCs in building new monitoring stations on drought indicators including hydro-met, salinity intrusion, groundwater, and soil moisture



National training on DFEWS in Thailand



Monitoring station in Chiang Rai, Thailand

3. Coordination & Support among MRCS with MCs

MRCS provides the following coordination and supports to MCs:

- Technical support to MCs on drought pilot study in the drought prone areas of MCs
- Development of drought adaptation guidelines to support the MCs on drought adaptation and mitigation.



Pilot site on rehabilitation of an agricultural pond in Kampong Cham, Cambodia

4. Conclusion

- ❖ The Lower Mekong Basin is one of the most vulnerable areas to climate change with more severity of flood and drought in the future
- ❖ MRC needs to build more capacity to MCs on drought management and mitigation to reduce the impacts on agriculture, socio economics, environment, and people livelihood
- ❖ Drought forecasting system is an extremely important element for the MRCS which needs to be enhanced from time to time to catch up with the advancement of technology in the future to be able to forecast the drought situation for early preparedness and planning.



THANK YOU

One Mekong. One Spirit.