

Technical assistance to Vietnam for strengthening national capacities to deal with weather related natural disasters, promote advanced methodologies for weather forecasting, dissemination of warnings to users and response at local level

Theme 1 (M2EWS) of the Agreement between ADPC and MFA Norway (Phase II)



## Proceedings of the El Niño Early Warning Workshop and Forum in Vietnam

29 May 2014, Hanoi, Vietnam

Jointly collaborated by: The NHMS Vietnam and ADPC and supported by the Ministry of Foreign Affairs Norway.



## Preamble

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El Niño is a recurrent phenomenon that occurs in irregular periodic intervals ranging from 3 to 7 years resulting extreme drought conditions in some parts of the world namely, Africa, Indonesia, northern Australia, etc. This phenomenon originates in the Eastern and Central Pacific Oceans with observed above normal sea surface temperatures (SST) by disturbing cold water upwelling off South American coasts (Peru) and weakening trades wind (easterlies) over the Pacific Ocean. El Niño events often prevail more than one year period starting from April / May in particular year and having the peak in December. As a result extreme heavy precipitation events observe over Peru and adjacent countries during El Niño years. El Niño as a slow onset but wider impact situation has now been regarded a major disaster risk management related concern in the countries in Asia-Pacific region including countries such as Indonesia, Vietnam, the Philippines, Australia, Timor-Leste and other countries in the region.

Given the heightened levels of Global predictions on the El Niño situation in the last few months, the National Hydro Meteorological Services (NHMS) of Vietnam has requested the Asian Disaster Preparedness Center (ADPC) Thailand to conduct a workshop and forum for knowledge sharing which would eventually help them grow further knowledge towards the El Niño phenomenon and help take informed decisions to predict, monitor and manage the situation in a concerted manner in Vietnam. To respond to this call, the Climate Change and Climate Risk Management Department (CCCRM) of ADPC in collaboration with the NHMS Vietnam has conducted this El Niño Early Warning Workshop and Forum in Hanoi on 29 May, 2014 involving the multi-agency stakeholders in this national event.

The event was implemented as part of the ongoing project titled: “Technical assistance to Vietnam for strengthening national capacities to deal with weather related natural disasters, promote advanced methodologies for weather forecasting, dissemination of warnings to users and response at local level”, the theme 1 project of the Agreement between ADPC and MFA Norway (Phase II).

## El Niño situation in Vietnam

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Vietnam has remained vulnerable to the ENSO related impacts in the past decades. However, a varied level of evidence and documentations has also been a problem of detecting the deeper level of impacts of the past El Niño phenomenon. It was clearly evident that many parts of Vietnam is vulnerable to slow onset hazards such as drought conditions during the past El Niño years and having strong impacts in water resource and agriculture sectors.

This ENSO context had a spiral impact on food security and the conditions in the country that had often decreased the crop production in various parts of the country. Since there is a strong signal of impacts in the country during El Niño years, National Hydro-Meteorological Service (NHMS) in Vietnam has shown keen interest to organize a forum which would facilitate to draw sector specific planners, researchers, policymakers, University professionals, etc., to discuss and disseminate outlook of El Niño for the coming months and to have a dialogue with sector specific stakeholders of possible adaptive measures to minimize the risks associated with the event.

## Participation in the ‘El Niño Forum’

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In realizing the importance the event, ADPC has organized El Niño Early Warning Workshop and Forum on 29<sup>th</sup> May 2014 in Hanoi, Vietnam in collaboration with NHMS. The El Niño forum was participated by 50 participants (the participant list is placed as Annex I) representing Dyke Management Department of Ministry of Agriculture and Rural Development (MARD), Disaster Management Center of MARD, Institute of Geography, Academy of Science and Technology of Viet Nam, Institute of Meteorology, Hydrology and Environment (IMHEN), Natural Science University, Hydro-Met. Magazine and Media (VTV, MONRE journal & VOV), officials of NHMS who were drawn from all regional Hydro-Met Centers, namely, Northwest, Mid-North, Northeast, Red River Delta, North Central, Mid Central, Highlands Central, South Central, Southern and Headquarter in Hanoi. Two senior officials of ADPC (Dr. Senaka Basnayake, Department Head of CCCRM and Mr. Atiq Kainan Ahmed, Program Specialist for Early Warning Systems of CCCRM) participated the forum as resources persons.

The forum was inaugurated by Dr. Tran Hong Thai, Deputy Director General and Dr. Senaka Basnayake, Department Head of CCCRM representing NHMS and ADPC, respectively (ANNEX II).



Fig. 1. Dr. Tran Hong Thai, Deputy Director General of NHMS delivering his inaugural speech at the forum.



Fig. 2. The cross section of the multi-agency participants attended at the El Niño Early Warning Workshop and Forum

## Presentations and technical consultations

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Dr. Senaka Basnayake and Mr. Atiq Kainan Ahmed made a joint presentation on genesis and development of El Niño and its global consequences leading to drought conditions in some parts of the world. They also presented the outlook of El Niño for the season ahead based on the forecasts produced by global prediction centers such as NOAA and IRI.

Mr. Nguyen Duc Hoa and Mr. Bui Duc Long of Central Hydro-Met. Forecasting Center of NHMS made presentations on “Possibilities of Meteorological and Hydrological droughts in 2014 – 2015”. They presented seasonal outlook for the country and informed that there is chance of getting below normal rainfall during the coming months, which could lead to a meteoroidal drought followed by a hydrological drought.

Mr. Nguyen Dang Mau of IMHEN made a presentation on the “Impacts of El Niño to the drought and identification of drought situation in Viet Nam in 2014-2015”. He emphasized that Central and Southern parts of the country would experience drought condition during El Niño years in addition to Northern parts of the country.

Ms. Vu Thanh Hang of Natural Science University in Vietnam discussed the “Seasonal forecast for drought in 2014-2015”. She emphasized the importance of research for improving forecasting techniques or methodology. She thanked the organizers for organizing this event which enables to exchange the ideas and experience among researches and practitioners.

Water Resources Department of MARD also made a presentation and discussed about their mandate, which facilitates to disseminate forecast information and products to user agencies.

Mr. Mai Van Khiem of IMHEN made a presentation on “Assessments of impacts of Climate change to the drought in Viet Nam”. He emphasised that climate change has a huge impact

in the country. He further emphasized that recurrent droughts associated with El Niño events is a good example of climate change.

Mr. Tran Thanh Cong of Southern Regional Hydro-Met. Center of NHMS discussed the “Integration of information in monitoring and forecasting drought”. He highlighted the importance of drought monitoring in addition to forecasting based on statistical and dynamical models.

The global/regional predictions of ENSO and national implications of El Niño was discussed in detailed and came from the presentations. Some of the available predations at that time are outlined in the ANNEX III.

## **Discussions and the way forward**

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At the concluding session of the forum Dr Senaka Basnayake and Dr Dai Khanh of NHMS Vietnam have facilitated a round of discussions on the way forward on this needed initiative. Participants have shown a great interest to understand the impacts of El Niño in the country, which greatly affects to sectors such as water resources, agriculture, etc. and to continue this type of discussion in future. This was identified as a request from many of the participants which they think would allow them to gradually update each other on the ENSO updates among the stakeholders and grow knowledge towards the phenomena as well as the needed actions to be taken on the ground. They also appreciated the efforts of NHMS for generating wealth of information on phenomenon as well as the forecasts for the season ahead.

It was also appreciated the research contribution of IMHEN and National University to improve local forecasting system in the country. Participants also appreciated the support of MARD for its strategic guidance for NHMS and IMHEN for improving forecasting systems and dissemination of warnings and information to the communities who are at risk of associated extreme events such as drought.

A few Senior Researchers have also given thoughts on how the El Niño affects the country and how the seasonal forecast system should develop to cater the need of sector specific stakeholders. It was also suggested to have proper drought monitoring system based on GIS/Remote sensing.

The following suggestions were made as the way forward to continue the effort and to have close dialog on the event.

- To have a google/yahoo group mail accounts among the participants to exchange forecast information/watch/alerts/warnings. It was suggested to assign one of the senior officials (Directors) of NHMS to server as the moderator of group mail system;
- To conduct a follow-up forum in July/September, if the El Niño condition get severe;
- To conduct a regional (in-country) follow-up forum in Da Nang province, where the pilot site is located in strengthening EWS, to educate and to create awareness of provincial level officials.

**ANNEX I****List of participating organizations in the event**

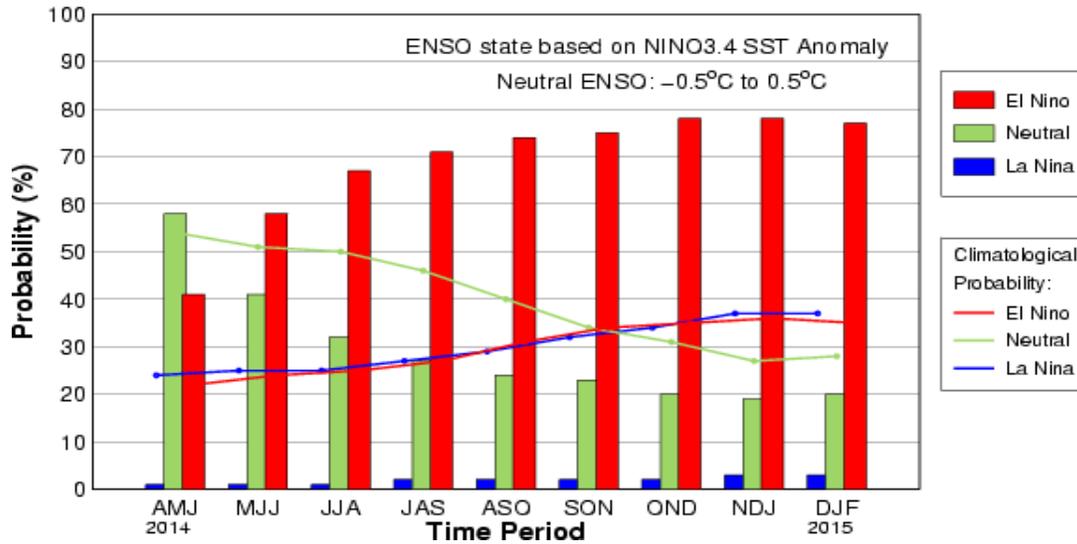
<b>No</b>	<b>Organization</b>	<b>Number</b>
1	NHMS's Leaders (Deputy Director General & Director)	02
2	ICD, MONRE	01
3	Department of Hydro-Met. And Climate Change	01
4	Boards, Units under the NHMS (in Ha Noi)	18
5	Northwest Regional Hydro-Met Center	01
6	Mid-North Regional Hydro-Met. Center	01
7	Northeast Regional Hydro-Met. Center	01
8	Red River Delta Regional Hydro-Met. Center	01
9	North Central Regional Hydro-Met. Center	01
10	Mid Central Regional Hydro-Met. Center	01
11	Highlands Central Regional Hydro-Met. Center	01
12	South Central Regional Hydro-Met. Center	01
13	Southern Regional Hydro-Met. Center	02
14	IMHEN	03
15	Natural Science University	02
16	Institute of Geography, Academy of Science and Technology of Viet Nam	02
17	Dyke Management Department, MARD	02
18	Disaster Management Center, MARD	01
19	Hydro-Met. Magazine	01
20	Media (VTV, Monre journal, VOV...)	05
20	ADPC Thailand	02
	<b>Total</b>	<b>50</b>

**AGENDA**  
**El Niño Early Warning Forum**  
*Ha Noi, 29 May 2014*

Time	Content	Responsibility/Presenters
08:00-08:30	Registration	NHMS
08:30-09:00	Opening ceremony	NHMS & ADPC
09:00-09:15	Introduction of participants	All
09:15-10:00	Presentation ADPC	ADPC <u>Dr. Senaka Basnayake &amp; Mr. Atiq Ahmed</u>
10:00-10:30	Possibilities of meteorological drought in 2014 – 2015	Central Hydro-Met. Forecasting Center <u>Mr. Nguyen Duc Hoa</u>
10:30-10:35	<i>Group photo</i>	<i>All</i>
10:35-10:50	<i>Coffee break</i>	
10:50-11:20	Possibilities of hydrological drought in 2014 – 2015	Central Hydro-Met. Forecasting Center <u>Mr. Bui Duc Long</u>
11:20-11:50	Impacts of El Niño to the drought and identification of drought situation in Viet Nam in 2014-2015	IMHEN <u>Mr. Nguyen Dang Mau</u>
11:50-12:20	Seasonal forecast for drought in 2014-2015	Natural Science University <u>Ms. Vu Thanh Hang</u>
12:20-14:00	<i>Lunch</i>	
14:00-14:30	Presentation of Water Resources Department, MARD	Water Resources Department, MARD
14:30-15:00	Assessments of impacts of Climate change to the drought in Viet Nam	IMHEN <u>Mr. Mai Van Khiem</u>
15:00-15:30	Integration of information in monitoring and forecasting drought	Southern Regional Hydro-Met. Center <u>Mr. Tran Thanh Cong</u>
15:30-15:45	<i>Coffee break</i>	
15:45-16:30	Discussion	All
16:30-16:45	Summary	NHMS & ADPC
16:45-16:50	Closing	NHMS

Some of the global ENSO Forecasts discussed in the Forum (as on 15 May, 2014)

Early-May CPC/IRI Consensus Probabilistic ENSO Forecast



Mid-May IRI/CPC Plume-Based Probabilistic ENSO Forecast

