

2009-2010 El Niño Southern Oscillation (ENSO) Events in the Philippines: Impacts, forecasts, and risk management

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In most recent decades climate in the Philippines has been characterized by high variability as manifested by torrential rains and strong winds in a particular year followed by rainfall deficiencies the following year and sometimes drought. Climatic analysis in the country during the last 50 years done at the PAGASA show that extreme climate events are link to El Niño Southern Oscillation (ENSO) which create natural disasters resulting to devastation of the country's economy and environment, damage to properties and in some cases, even the loss of lives. Impact of El Niño in the Philippines is associated with increased chance of below normal rainfall condition and La Niña is associated with an increased chance of above normal rainfall condition. Changes in rainfall are associated with changes to tropical cyclone activity in the western equatorial Pacific, the strength of the monsoon and changes in the onset and/or termination of monsoon rains. During the last 50 years (1960-2010), there have been 16 El Niño events and 12 La Niña events that affected the country and brought tremendous and devastating impacts, although in few cases positive impacts in various sectors of the society and environment. In this paper we also describe the characteristics of Philippine climate and the impacts of the ENSO in the country particularly the recent 2010-2011 La Niña and the previous 2009-2010 El Niño events. Likewise, effect on water resource is identified, considering the pressures it gives to the water management sector due to the impact of water deficiency. Opportunities and challenges in bringing the understanding of the climate information to the end users and its application to risk management to mitigate the impacts of ENSO are also discussed. Keywords: ENSO, drought, risk management, seasonal climate forecast, tropical cyclone