Nepal's Food Basket Under Stress: El Niño and Climate Risks in Madhesh

Is Madhesh ready for El Niño?

Madhesh, a food basket on which Nepal depends, also has to depend on timely monsoon rainfall to flourish. The region is facing severe droughts, ground water depletion, changed monsoon patterns and other climate induced disasters making Madhesh and a whole country under climate stress and food insecurity.

I visited Mahottari from 9-11th June, 2026 as a part of the ***'Local Capcity for Climate and Disaster Resilience' (KSHAMATA) Project*** - a joint initiative of Prakriti Resources Centre (PRC), the Community Development and Advocacy Forum Nepal (CDAFN), and HELVETAS Nepal to understand how communities are experiencing the impacts of climate change with major focus on strengthening local capacity for climate and disaster resilience, the visit quickly became much more than a field experience.

Interactions with the farmers, locals and government representatives made me realize that climate change has not only impacted the temperature, seasonal patterns and the increased extreme events but also the confidence and reliance of the generations of farmers on the agricultural lands that they farm on. People here are finding it difficult to cope the unprecedented climate impacts.

These impacts are expected to magnify in Madhesh with the onset of El Niño this year. El Niño is a naturally occurring climate phenomenon characterized by unusual warm sea surface temperatures in the central and eastern equatorial Pacific Ocean. It is expected to experience below-normal rainfall and above average temperature in Madhesh due to El Niño effect.

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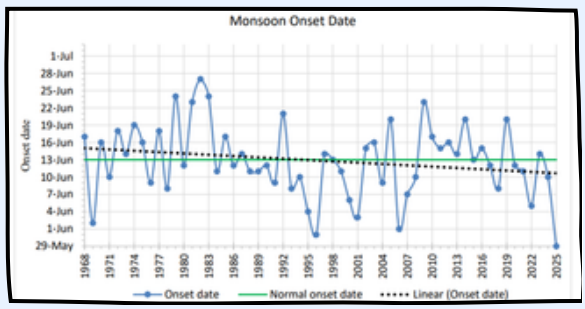
Many farmers were unable to transplant paddy on time, last year due to declined rainfall. I could sense even more devastating scenario after my visit to climate impacted community in Pipara, Mahottari, which will also have to face **Super El Niño** impacts this year. It was heartbreaking to hear from one of the farmers *"There is no rain when needed, and when our crops are ready to harvest, they are destroyed by hailstorms, flash floods, and heavy downpours."* Monsoon has become unpredictable but the cropping patterns rely on season calendar. People here are waiting for onset of monsoon as the paddy seedlings are ready for transplantation.

These led me to further investigate on the issue. Based on the records, our monsoon usually arrives by June 13th. But it was already the end of June while the entire country was still waiting for the onset of monsoon. Watching this delay, I could see the anxiety growing across Madhesh Province as the rice transplantion season had already approached. This made me wonder, ***"Will Madhesh face another year of drought and monsoon deficit?"***



Source: DHM, 2025

This Year, the risks are even greater because meteorological forecasts by Department of Hydrology and Meteorology's (DHM) seasonal outlook 2026 suggest that El Niño conditions could influence the monsoon season as it is associated with weaker monsoons, prolonged dry spells, and higher temperature. El Niño has impacted the monsoon seasons severely in the past. Madhesh this year is expected to experience below normal rainfall and more extreme heat days than ever before.

Communities that were already struggling to adapt with the climate extremes, now will have to face the cumulative impacts with the onset of El Niño.

In our agricultural heartland, where survival depends completely on the seasonal rain, every dry day leaves me asking one critical question: *"Are we truly prepared for another climate shock?"* But the answer to the question remains clear: Madhesh is not yet prepared.

Discussions with local governments in Mahottari revealed a clear reality: Local governments somehow understand the risks, but their capacity to respond remains limited. For instance, it was interesting to hear local government's efforts to minimize the climate impacts. Gaushala Municipality is planning to include a program to cut down Eucalyptus trees to minimize water stress in its annual plan. Identifying the local stressors for natural resources can play an important role to better manage the resources.

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But climate risks are increasing faster than local preparedness, as more frequent droughts, heatwaves, floods, and water scarcity continue to outpace the adaptive capacity of communities and local governments.

Addressing these challenges requires more than emergency response. Strengthening local institutions, improving weather forecasting systems, investing in climate-resilient agriculture, and enhancing local adaptation capacity are critical to building long-term resilience. The main concern is not just getting ready for the next drought, flood, or heatwave but rather getting ourselves prepared for a world with an erratic climate where nothing is constant and predictable anymore.

If the seasons cannot be predicted anymore, what happens to their livelihoods, food security, economy, and the generations of knowledge they hold? While Nepal awaited the monsoon, I found myself thinking the same question that most of the farmers in Madhesh think as they look up at the sky:

"For how long can the nation's food basket sustain its people if the rain we are counting on cannot be counted on anymore?"

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Drought-impacted wetland invaded by invasive species due to mismanagement at Pipara, Mohattari

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