Knowledge of the genetic diversity of maize varieties along with information about traits conferring heat stress tolerance is necessary for generating effective breeding programs in heat stress prone agro-ecologies. This study aims to elucidate the mechanisms of heat tolerance under field conditions in maize and identify potential genotypic variation that could be utilized in breeding programs.

Study hypothesizes that there is no significant difference among Maize genotypes. Likewise, contribution of component traits with potential impact on yield will be tested with yield response regression and pathway analysis.

The objective of the research is to identify superior heat stress tolerant exotic hybrids for summer growth conditions in Kailali district of Nepal. We aim to quantify effects of component traits in yield response as well as compare different genotypes (including adapted local checks) for their performance under heat stress.