Based on the genotypic data, a subset of 300 diverse accessions were chosen from the composite collection using ‘max length sub tree’ option of DARwin5.0, which creates the subset of units minimizing the redundancy between units and limiting the loss of diversity (Table 4). This reference subset has captured 95% of the composite collection alleles (230), representing diversity from the entire spectrum of composite collection. The reference collection will be evaluated for traits associated with drought tolerance and other agronomic traits. The plant breeders will have access to genotypically diverse accessions to enhance the yield potential of pearl millet. Seeds of reference set are available to the bona fide users of germplasm from ICRISAT genebank upon signing Standard Material Transfer Agreement (SMTA).