Risk factors for subclinical MASTITIS were studied in 474 female buffaloes proceeding from four dairy farms located in the states of Pernambuco, Alagoas, Bahia and Ceará. Milk samples (n=1896) of lactating female buffaloes were examined for somatic cells count (SCC) and microbiologic exam, and a questionnaire composed by objective questions was applied in order to obtain animals and herd management data. Risk factors analysis was performed in two stages: univariate and multivariate analysis. Two analysis were performed, one considering the animal classification for SCC as the dependent variable (< 400,000 - negative; >400,000 - positive) and another, considering the microbiologic exam result (positive and negative). In the multivariate analysis considering SCC as dependent variable, the lack of teat washing was the only variable identified as a risk factor, so that farms without this procedure before the milking presented risk of infection of 2.68 (I.C. 1.49 - 4.83). In the multivariate analysis considering the microbiologic exam as dependent variable, it was observed that properties that performed the cleaning of the milking equipment manually presented risk of 1.85 (I.C. 1.32 - 3.64), which was higher than those properties that performed the cleaning mechanically (p=0.019). Risk factors for the occurrence of subclinical MASTITIS in dairy buffaloes in Brazilian Northeast farms were related to the characteristics of improper milking management. Risk factors identified in this study must be carefully corrected in order to reduce the frequency of MASTITIS cases, and therefore, contribute for disease control and prevention in the herds.