The antimicrobial effect of some selected Samburu medicinal plants was evaluated on bacterial strains like Staphylococcus aureus - ATCC 20591, Bacillus subtilis - Local isolate, Salmonella typhi-ATCC 2202, Escherichia coli-STD. 25922 and Pseudomonas aeruginosa - ATCC 25852 and fungal strains like Candida albicans ATCC EK138, Aspergillus niger ATCC 16404, Aspergillus flavus-Local isolate, Fusarium lateritium-Local isolate, and Penicillium spp.- local isolate. Methanol was used as solvent for the extraction from the selected medicinal plants used by the Samburu community. The in vitro antimicrobial activity was performed by agar disc diffusion and micro-dilution technique. The most susceptible Gram-positive bacterium was S. aureus, while the most susceptible Gram-negative bacterium was P. aeroginosa. The extracts of Gomphocarpus fruticosus (L) W.T. Aiton showed less activity against the bacterial strains investigated. The most active antibacterial plants were Euphorbia scarlatica S. Carter, and Euclea divinoram Hiern. Incidentally most of the extracts were inactive against the fungal strains with only a few proving to be slightly active against the C. albicans i.e. Loranthus acaciae Zucc., Kedrostis pseudogijef (Gilg) C. Jeffrey, Euclea divinoram Hiern. and Croton macrostachyus (A. Rich). Benth. The significant antimicrobial activity of active extracts was compared with the standard antimicrobials, cefodoxima, amoxicillin and fluconazole. The MICs of the most active plants ranged from 18.75mg/ml to 37.50mg/ml. The MBCs ranged between 18.75mg/ml to 75mg/ml. These results were significant at P< 0.01. The findings show that most of the medicinal plants used by the Samburu community have some significant activity on the bacterial but not fungal pathogens known to cause diarrhoea.