This research study examined the effects of HIV/AIDS on sustainable human development in the informal settlement. The main aim of this study was to find out the effects of the HIV/AIDS pandemic on various development sectors in the informal settlement such as Education, Health, Socio-cultural and technological developments. It was also aimed at studying the political goodwill in informal settlement. A total of 300 questionnaires were distributed to the 12 villages forming Kibera informal settlement. Initially a lesser number of 240 were meant for the distribution and due to the migratory character of the respondents, which had a high rate of non-respondents rate, the study increased the number; received back were 140. Some of the respondents in Kibera withheld the questionnaires in the hope that they would benefit from the project. This kind of expectation gave a poor response rate. This represents a respondent rate of 46.6. The study evaluated the effects of HIV/AIDS pandemic on the sustainability of human development initiative in Kenyan in formal settlements with special reference to Kibera slums in Nairobi. A stratified sampling design was used in the distribution of the questionnaires. These covered the 11 villages constituting Kibera slums, which are Soweto 1, Sowetoz, Katwekere, Chiranga, Kisumu Ndodo, Mashimoni, Line Saba, Makina, Lindi and Kichinjio. This gave the outcome of the study, which has been presented in terms of introduction, major findings of the study, answers to research questions, conclusion, suggestions of the study room for further studies. The application of the various issues raised in this study will be found useful in policy formulation and project operation in line with management of HIV/AIDS pandemic in relation to sustainable human development initiatives.