Communicable disease is disease caused by a biological agent that is transmitted or transmitted to another person through a particular medium. One dangerous infectious diseases in Indonesia is elephantiasis or Latin language called Filariasis. Filariasis is a chronic infectious disease caused by infection with filarial worms living nematodes class tract and lymph nodes (lymph) and can cause acute and chronic clinical symptoms is transmitted through mosquito bites by mosquitoes. Figures filariasis cases occurred in West Kalimantan in 2012 there were 321 cases and Sambas district is the largest contributor number of filariasis cases as many as 78 cases in 2012. District of Sejangkung is the highest figure in the discovery of filariasis cases in Sambas district so that the need for research on environmental factors that influence the incidence of filariasis in District Sejangkung.

The purpose of this study was to determine the environmental factors that affect the incidence of filariasis in District Sejangkung. This type of research is observational analytic study with case control approach. Statistical analysis in this study using the chi-square. Filariasis patient population was recorded at the health center with the number 18 that the ratio between cases and controls using a ratio of 1: 2 with total samples taken 54 people.

The results of this study indicate that there is a relationship between the incidence of filariasis by mosquitoes breeding places with p value = 0.014 (OR = 4.474), mosquito resting place with p value = 0.012 (OR = 5.2), the use of mosquito nets with p value = 0.012 (OR = 6.4), and activities outside the house at night with p value = 0.001 (OR = 10), whereas no association with the use of repellent with p value = 0.100.

Advice to people to always keep the environment around the home and use a mosquito net at bedtime at night. to health centers in order to improve dissemination and information through more intense counseling to people who are at risk of particular diseases fillariasis.

Key words : filariasis, outside activities