Daily-used water cannot be separated from the influence of pollutions which are caused by some human activities. Some contaminants that are commonly found in water include microorganisms such as bacteria, viruses, and parasites; organic contaminants such as pesticides and detergents; inorganic contaminants such as salts and metals; and some organic chemical contaminants. The contaminated water may affect human health and the agricultural productivity if used for irrigation. Moreover, if the soil is contaminated it will affect the microorganisms live inside so that the plant growth will be worse (Sunu, 2001).

The Lake Rawa Pening belongs to Agricultural tourism in Central Java. It covers a total area of 250.79 km² with the maximum capacity for water supply is 65 million m³ on the elevation of 463.90 m (Jratunseluna, 1976). It is also functioning as fishing area, peat mining, irrigation, and standard water sources. The natural resources exploitation has been causing the decrease of its major roles. The massive exploitation both on the lake and river basins has been being rapidly committed due to the increase of human population and the good accessibility to the site. In addition, the rapid growth of aquatic plants such as Eichhornia crassipes; settlement and industrial wastes; agricultural pollutants; and heavy metals found in the sediment have blamed to be the causal factors for the decrease of water quality (FT. UNDIP, 2003).

I am interested in studying the water quality of Rawa Pening due to the assumption that the water quality has been decreasing whereas it will massively affect the life of people in central Java.

SAMPLE AND METHODS

The sample collection of the study is made on four sites including (a) the water sources of Rawa Pening, (b) population area of Eichhornia crassipes, (c) inlet of water which carries pollutant from agricultural areas, settlements, and industries and (d) the outlet by using survey.