ABSTRACT

YURIKE ELISADEWI RATNASARI. Cost Benefit Analysis of Brucellosis Control and Eradication Program of Belu District and Kupang District of East Nusa Tenggara Province. Under direction of AGUSTIN INDRAWATI and RAHMAT HIDAYAT.

Belu district and Kupang district are endemic brucellosis area in East Nusa Tenggara Province. The present study evaluated of brucellosis control and eradication program in those districts using Cost Benefit Analysis. Brucellosis prevalence in Belu district 14.5% and Kupang district 2%. Two brucellosis control alternative programs were analyzed for Belu district: Program A was continuation of the present program (vaccination with average 57% coverage). Program B was intensive vaccination (80% coverage). Both programs were given positive NPV, B/C ratio > 1 and IRR which is higher than discount rate 15% and 20%, but implementation of Program B is more feasible (economic feasibility) than Program A. Program B was also feasible from epidemiology aspect than Program A, because Program B will produce herd immunity that can reduce brucellosis prevalence. In Kupang district, two brucellosis alternative strategies were analyzed: Program A was continuation of the present program and Program B was intensive slaughtering of reactors for 6 years. Implementations of both programs were given positive NPV, B/C ratio > 1 and IRR which is higher than discount rate 15% and 20%. NPV of Program B was greater than Program A, but B/C ratio and IRR of Program A was greater than Program B, because of that, Program A was more economic feasibility than Program B. But, we chosen program which given greater beneficial both financial and non financial, and then by combine economy and epidemiology aspects, Program B was more suitable for Kupang district.

Key Words: Brucellosis, Cost Benefit Analysis, Belu, Kupang, East Nusa Tenggara Province