

Brucellosis in West Timor: economic impacts and control strategies

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This paper describes the economic impact of brucellosis in West Timor, past efforts to control it and future plans for improved and more cost effective control.

Brucellosis due to *Br. abortus* was imported to West Timor from Queensland, Australia, in 1975, and spread slowly to the adjacent naïve population of Bali cattle (*Bos sondaicus*), causing severe abortion storms, calf losses and high levels of recurrent infertility. A short review in 1993 showed a large variation in seroprevalence between districts with some districts near the original focus having cattle prevalences of over 80% positive, while others far away had less than 1%. A recommended control strategy involving calfhood and some adult reduced dose Strain 19 vaccination in high prevalence areas, and test and slaughter in low prevalence areas, with accompanying movement controls between districts, was partially implemented from 1994 to the present.

Detailed epidemiological and economic study in the late 1990's demonstrated that the recommended strategy would be highly cost-beneficial, due to the ongoing severe impacts on cattle fertility (which appear more severe than in *Bos taurus* cattle) and consequent economic impacts on smallholder farmers and village economies. Nevertheless, implementation of the control program has been very patchy due to numerous problems including chronic shortage of resources, difficult terrain and consequent accessibility of cattle, low educational status of farmers, regional autonomy in Indonesia, and social disruption particularly in the high prevalence areas of West Timor during and after the period of East Timorese independence.

A disconnect between where the actual costs and potential benefits of the program fall has also reduced long term commitment to the program from central, provincial and local governments. All these levels must be involved for success in the decentralised model of government which has been progressively applied in Indonesia since 1990.

A process for renegotiating the long term control program for brucellosis in West Timor based on applied research into the current situation and retrospective and prospective economic cost-benefit analysis is underway and will be described in the paper.