

Protecting aquatic biodiversity through health management and risk analysis: on-going initiatives and future prospects

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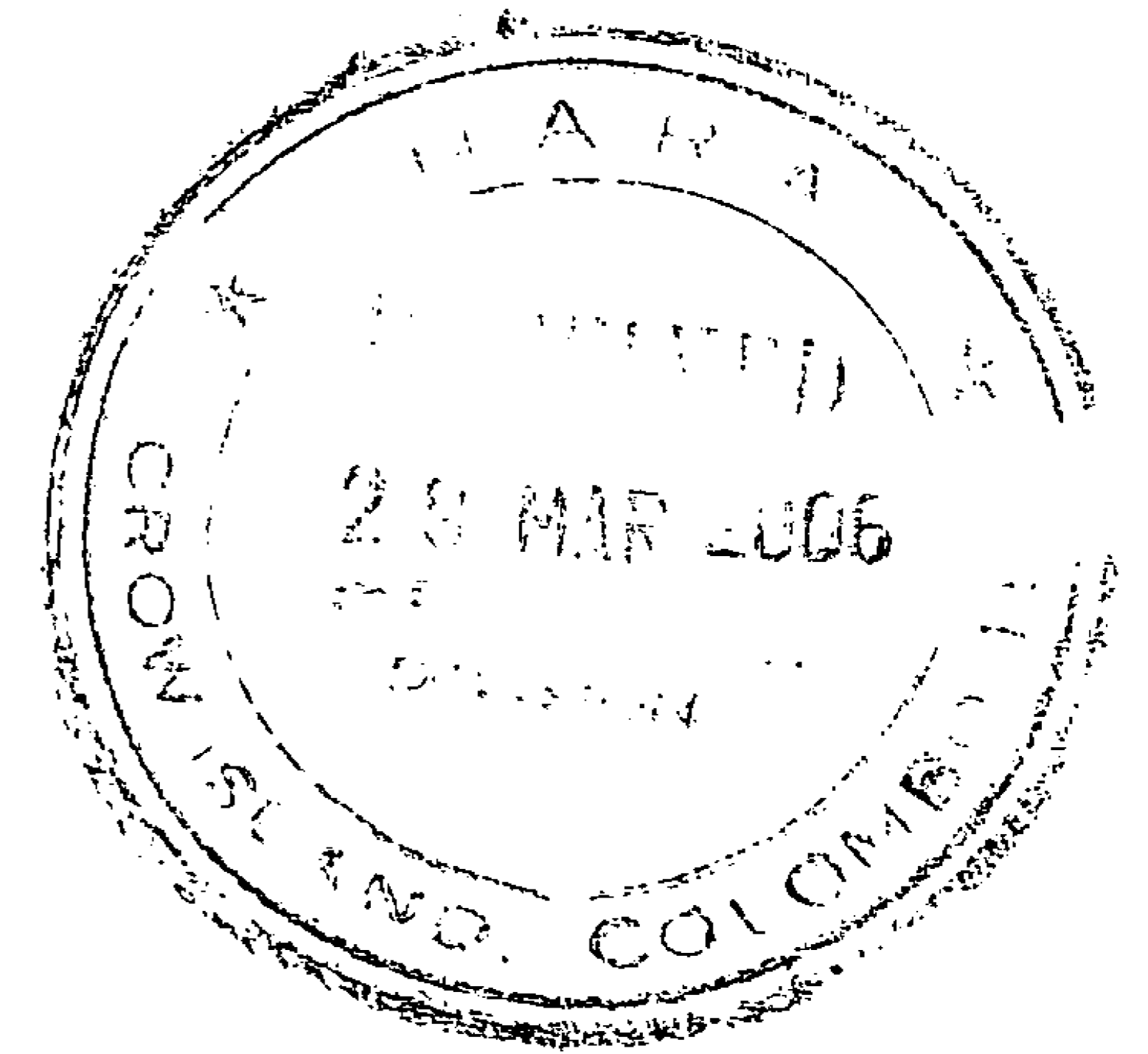
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ABSTRACT

This discussion paper reviews some of the activities related to protecting aquaculture and aquatic biodiversity from transboundary aquatic animal pathogens (TAAPs) that have recently occurred or are being planned for the Asia-Pacific Region. It also speculates on where aquatic animal health in the region is headed in the next few years.

INTRODUCTION

The impacts of transboundary diseases on cultured stocks of aquatic animals are often well documented, due to the fact that in semi-intensive and intensive aquaculture production outbreaks of disease and associated mortalities are readily observed and the losses, in terms of numbers of dead animals and their monetary value, are easily quantified when ponds or cages are harvested. In contrast, the impacts of exotic diseases on wild populations of aquatic animals are less easily seen, as moribund animals are easy prey and may be quickly taken by piscivorous fish, birds and mammals. Additionally, accurate quantification of losses is usually impossible, as estimates of original population size are often not available, and any impacts on host population structure and aquatic biodiversity are difficult to measure, due to the problems inherent in working with natural ecosystems. Nonetheless, aquatic animal health workers are beginning to realize that the impacts of exotic diseases on wild populations of fish, shellfish and molluscs may be more significant, in terms of economic and social losses and long-term ecological impacts, than diseases confined to aquaculture systems (see, for example, Arthur and Subasinghe, 2002). This discussion paper will review some of the activities

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