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# Risk aversion and emotions in the management of climate-related risks by fish farmers

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## ARTICLE INFO

### *History:*

Draft: 15 Jun 2015

Incomplete draft. *In prep.*

### *Keywords:*

climate change,  
aquaculture,  
risk aversion  
risk attitude  
emotions

## ABSTRACT

Many previous studies have documented that farmers are risk averse. Conventional risk aversion measures often do not fully explain decision behavior; it may be necessary to consider emotions. The specific research questions addressed were: (1) What factors are associated with risk aversion? (2) How do risk aversion and emotions influence risk decisions? The study used a mixture of methods, including a role playing simulation game, two standard risk aversion scales, in-depth interviews, and focus group discussions to improve the understanding of attitudes and emotions around the climate-related risks faced by fish cage farmers in northern Thailand. According to a gamble choice exercise two-thirds of fish farmers were strongly risk averse. There was no significant difference in risk aversion with respect to gender, age group or region. Farmers preferred making decisions in situations with known outcomes, but having sufficient capital made it possible to take more risks. Recently being impacted by floods or droughts, or being very concerned with climate change, was not associated with taking fewer risks. Two standard measures of risk aversion did not predict risk taking behaviour in a role playing fish farming game. Feeling worried, concerned, anxious or stressed was the most common negative emotion referred to in the interviews. Uncertainty and lack of control were key appraisals for these types of emotions. Fear was a reason for not-taking risks. Experience and knowledge were observed as ways of overcoming fear of taking risks. Common positive emotions were joy, excitement and feeling 'relaxed' or 'relieved'. Men who expressed pride had performed better in games than those who had not, but for women there was no difference. Men who expressed feeling excited or thrilled chose riskier, higher stocking densities, in games than women. Emotions may play a more important role in making decisions about climate-related risks than has being previously recognized.

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