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Has been involved in research since 1999
(both in Bangladesh and Europe) and
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Graduated from University of Dhaka,
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Has European joint Master's degree in
"Water and Coastal Management" from
University of Plymouth, UK and University
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An Erasmus Mundus scholar and worked
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Department of Environmental and Business Economics

The Department of Environmental and Business Economics was founded in 1998. The department has several research groups. Environmental and Resource Economics group is one of the strongest groups of SDU. This group has five primary research themes; theory of regulations, pollution and resource scarcity, integrated modeling, risk analysis, risk management and risk communication and ecosystem based management.

Risk and uncertainty is the main characteristics of the management of natural resources. This makes risk analysis and risk management important and necessary tools for analyzing natural resource and environmental issues, like international agreements on climate change, sustainability issues, trade policy, etc. The necessity of these types of analysis has been further intensified by climatic changes, which are expected to influence all parts of society and nature and carries with it large amounts of risk and uncertainties. Therefore, risk analysis, risk management and risk communication group has been working to handle the issues related with risk.

Centre for Fisheries & Aquaculture Management & Economics

FAME is a network and research school within resource and fisheries management and economics connecting universities, research institutions and researchers.

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PH.D. DISSERTATION OF

DEWAN ALI AHSAN

AT THE DEPARTMENT OF
ENVIRONMENTAL AND BUSINESS ECONOMICS
CENTRE FOR FISHERIES &
AQUACULTURE MANAGEMENT & ECONOMICS

**'RISK PERCEPTION AND
RISK MANAGEMENT STRATEGIES
AMONG AQUACULTURE FARMERS'**

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Risk Perception and Risk Management Strategies among Aquaculture Farmers

To understand individual's risk perception is very important as the individual's perception of risk can significantly influence his/her decision making process. Several researchers think that risk should be identified and quantified objectively only by experts and urge that the possible threats from a risky event perceived by lay people is irrational (as non-expert perceptions may be incorrect). However, many researchers like (Slovic 1987) believe that though an individual's risk perceptions may occasionally be misleading or inappropriate in some instances, they significantly play a vital role in risk management.

Aquaculture is a very old profession of human being as fish is one of the main protein sources of human. Supply of fish from wild stock has been depleting gradually, therefore, aquaculture is expanding day-by-day to meet the increase global demand and to ensure food security. Coastal shrimp farming has been considered as one of the profitable business in many developing countries. Bangladeshi is the 6th largest shrimp supplier in the global sea food market. The country has exported 51, 599 Mt shrimp in 2010 and earned about 400 million Euros. Thousands poor households are involved with estuarine shrimp farming in Bangladesh. Aquaculture (especially salmon and mussel culture) is also a famous activity in many European countries. However, mussel culture in Denmark is a very new economic activity which has been started since 2003.

Investment in aquaculture is not risk free like any other business, therefore, this PhD work aimed to investigate the Bangladeshi and Danish coastal water aquaculture farmers' (shrimp and mussel farmer) perception of risks and management strategies of mitigate the perceived risks. FGD, semi-structured in-depth interviewing and questionnaire survey were used to collect the data. Lottery game and traditional trust gave were employed to conduct the experiment. The findings of the thesis indicate that output product price and demand are considered as the most important risk sources both by shrimp and mussel farmers. Bangladeshi shrimp farmers' perceive that disease prevention, input availability, proper training and minimizing of oligopsony behavior of the intermediaries in the marketing channel are the most important

risk mitigating strategies. On the other hand low cost production, cooperative marketing and maintaining good relations with the political system are perceived as the best risk management strategies by Danish mussel farmer. However, the results also reveal that there are few mismatches between farmers' perceptions of risk sources and the perceived importance of risk management strategies in dealing with perceived risks. Depending on the result, possible risk mitigating policies have been synthesized and recommended. This research will enrich the existing literature on risk management in aquaculture as there is a dearth of research in this field.

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Reference
Slovic P.1987. Perception of risk. Science, 236: 280-285

