

# Impact of a Shrimp and Rice Farming System on Agricultural and Household Income in Bangladesh: A Village-level Study in the Satkhira District

Year: 2011

Fieldwork location: Bangladesh

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Keywords: Shrimp, rice, farming system, Bangladesh

- **Research background**

During the last decade, shrimp aquaculture has become a major sector of fish farming, both in terms of the area of operations and the product market value, globally as well as in Bangladesh. Local farmers in Bangladesh coastal areas are increasingly interested in modifying their cropping system from one in which two rice crops are grown annually to a system in which shrimp and rice are alternately grown **\*\*1\*\***. Economic profitability and the availability of input resources for shrimp farming appear to be the causes of this change.

- **Research purpose**

The aim of this field research was to determine the impact of the alternating shrimp and rice farming system on agricultural and household income in the study area, a village in the Satkhira District of Bangladesh **\*\*2\*\***.

- **Fieldwork results**

Data on different economic aspects of shrimp and rice production were collected through individual interviews of local farmers. These data included all aspects of production costs and labor utilization for both rice (winter season rice) and shrimp culture **\*\*3\*\***. Briefly summarizing, the average income from shrimp cultivation was 103,200 Tk/ha, with an average production cost of 43,850 Tk/ha, providing an average net income of 59,350 Tk/ha. Concerning rice cultivation, the average income was 126,540 Tk/ha with an average production cost of 82,732 Tk/ha, providing a net income of 43,808 Tk/ha **\*\*4\*\***. Interviews with local farmers revealed that the farming system based on alternating shrimp and rice crops has increased both their agricultural and household income, compared to the farming system based on rice alone. Thus, the impact of the shrimp and rice farming system appears positive for the local farmers in the present study area.

- **Implications for future research**

The present field research examined the effects of an alternating shrimp and rice farming system on agricultural and household income in a coastal area of Bangladesh, and will aid my future research. I gained knowledge and experience concerning the collection of data from core members of a community **\*\*5\*\***. Using the present results as a baseline, I hope to conduct future research that focuses on different aspects of rice and shrimp farming in Bangladesh **\*\*6\*\***.



Picture 1. Local farmer working in a rice field.



Picture 2. Preparation of field for shrimp cultivation after rice harvesting.



Picture 3. Local farmer collecting shrimp with fishing net.

## Notes:

1. Please check that the edited version is appropriate. The pictures indicate that rice and shrimp are grown separately, however the use of “shrimp-rice” might cause readers to imagine that both crops were grown at the same time. It would be ideal if you mentioned a typical yearly sequence, such as when rice is planted, when it’s harvested, when shrimp are introduced, and when they are harvested.
2. It would be helpful if you gave the name of the village or otherwise clarified its location.
3. As mentioned in note #1, it would be helpful if the reader knew the approximate start and end of the winter season rice farming.
4. Please check that the net income figures are appropriate for both crops. This helps readers understand the comparative crop values.
5. The phrase “root levels of a community” gives a clear picture, but I think you should use a more precise expression in a scientific paper. Thinking of “root” in terms of the hierarchy of community members, such people might be “low” (lower social status than other members), or they might be “fundamental” (due to their importance to community survival). I don’t think “core” is the best word, since this might imply leaders rather than farmers. Therefore, please choose an expression that matches the position of the people who you interviewed.
6. It would be ideal if you briefly mentioned what these aspects are.

## Additional notes:

- I placed the pictures on a separate page, resized them to 90% of their original size, and rearranged the text boxes (with Track Changes off). The picture captions were edited with Track Changes on.
- I’m not sure that a bulleted list is an appropriate format for your fieldwork report.
- You didn’t mention a word limit, which might constrain adding text as suggested in the notes.
- I imagine that the impact of shrimp cultivation is not entirely positive, due to the use of various chemicals (input resources), but there may be synergies in terms of shrimp waste providing nutrients for rice. I hope you will have the opportunity to do more fieldwork and gather more data.