Research Title: Shrimp-*Boro* rice Cropping System and Farmers Coping Strategies for Rice Production in Coastal Area of Bangladesh: A Case Study in Satkhira District

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- Research background

  The lands under crop-agriculture in the southwest Bangladesh were mostly double and triple cropped (Islam, 2007). However, this pattern has been changed after the introduction of shrimp during 1980s and local varieties of rice have been replaced by high yielding varieties during the same period (Ali, 2006). The high profit in shrimp farming is responsible for changes in the land-use paten in the coastal districts of the country (Hossain et al. 2004). In some area of coastal region the shrimp is cultivated as monoculture and in most of the area shrimp is cultivated with a rotation of rice cropping. However, in the present study area, the shrimp is cultivated during the month from May to November and then the winter season rice (locally called *Boro* rice) is cultivated from the month of December to April. The cultivation of shrimp in the same field of rice is supposed to affect the yield of rice as the shrimp culture increase the salinity level of the rice field. The local farmers usually concerned with the selection of the rice varieties suitable for this kind of land.

- Research purpose and aim

  The present study aims to find out the local farmers perception about the salinity in their rice field and evaluation by themselves in selecting rice varieties for having better rice yield in the salinity affected shrimp cum rice field.

- Results and achievements by fieldwork

  The findings indicate that the salinity level is increasing in the rice field and to cope this problem the local farmers used to cultivate different rice varieties namely BRRI dhan28, Jhalak, Mongol, Jamaibabu and Tia in winter season and BRRI dhan28, Jamaibabu, Vitti in monsoon season. The data were collected on different criteria namely *high yield, high market value, salt tolerance, high seed price, rice keeping quality, taste, cold tolerance* and *straw value*. Considering the higher yield Jhalak is superior but the salt tolerance capacity is not so high whereas Tia and Jamaibabu have higher salt tolerance capacity with moderate yield. Again considering taste and rice keeping quality the BRRI dhan28 and Vitti is in a highest position. From the results it can be said that decision of selecting different rice varieties by local farmers are same and they cultivate some salt tolerant varieties along with other varieties based on their demand and those varieties are selected based on the above mentioned criteria.

- Implications and impacts on future research

  Through the present research work in the coastal area of Bangladesh I came to know the rising problem of rice growing farmers of coastal area of Bangladesh and in future I like to do more research on this issue to find out a better solution which will help the coastal farmers of Bangladesh.

Picture 1. A farmer is preparing his field for rice transplantation

Picture 2. A prepared rice field for rice transplantation

Picture 3. Rice seedlings in seedbed to be transplanted in the prepared rice field