**“Salinity impact on economic efficiency of rice production in the coastal area of Red River Delta, Vietnam”**

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**Abtracts**

Sea water intrusion in Red River Delta (RRD) has been obserbed and potentially affecting the rice production, but quantifying the impact interm of economic was not identified yet. This research aimed to estimate the impact of irrigation salinity on economic efficiency for rice production in the coastal area in RRD. Questionnaire surveys were conducted in two communes (Rang Dong (RD), Nghia Binh (NB) located in Day river estuary which was divided into 6 sub-regions by topography, salinity, and farming type. In total 311 households with 473 fields plot were randomly selected to interview the input (such as seedling, fertilizer, labour) and output (yeild and its’ price). Our results showed that salinity tended to reduce rice yield, increase labor input and reduce income of rice farmers, especially in the sub regions with higher salinity (RD2, NB3), consequently reduced profit of rice production at the rate of 14 mVND/ha/year per 1‰ incresing of salinity in the irrigation canal. The salinity level where rice production profit equates with fish production profit is at S=1.8‰; above that level rice can achive a higher profit in comparation to aquaculture. At pesent condition of salinity, total income of rice (37 ± 27 mVND/ha/year) was much lower than aquaculture (80 ± 176 mVND/ha/year), but income per labor was higher in rice (327 ± 132 000’VND/man-day) than aquaculture (212 ± 530 000’VND/man-day).

Kewords: Salinity intrusion, rice production, rice economic efficiency, conversion from rice to aquaculture