

## **RESEARCH BRIEF**

#### February 2024

# Better access to social activities and education would improve women's adaptation to salinity intrusion

Based on the EfD Discussion Paper entitled "Gender differences in adaptation strategies to salinity intrusion in the Mekong Delta, Vietnam: An intra-household analysis" by Dang, L.H., Pham, T.T., Pham, T.H.N & Pham, K.N.

Research questions: How does gender matter in intra-household adaptation choices in response to salinity intrusion and which factors affect the choices?

#### Key Messages

- Salinity (salt) intrusion has emerged as one of the pressing concerns for agriculture in the Mekong Delta, Vietnam.
- There is a growing interest in gender differences in adaptation to salinity intrusion, due to the great differences in both knowledge and access to various resources between male and female farmers.
- Wives and husbands are different in factors affecting their choices of adaptive measures as well as the number of adaptive measures that they intend to take.
- Access to education, participation in formal institutions, and training on adaptation to salinity intrusion affect both the type and number of adaptive measures that wives intend to take.
- Wives should be given timely and adequate support, encouraged to join more social activities and associations, and receive learning opportunities equal to those for husbands.

# Background and Methodology

Women have been seen more vulnerable to climate change due to their limited mobility and involvement in household decision-making process. There have been few studies of wives' and husbands' adaptive responses to salinity intrusion and influencing factors. Literature has indicated that the roles and responsibilities of wives and husbands have influenced their adaptive responses.

Mekong Delta, the major rice-producing region of Vietnam, has been seriously

facing sea level rise and salinity intrusion and is also one of the most vulnerable areas to climate change in Southeast Asia. While salinity intrusion is a pressing concern, little research effort has been paid to gender differences in adaptation to salinity intrusion, especially through intra-household analysis. Local authorities have been implementing measures to help farmers in adaptation to salinity intrusion. However, genderspecific measures remain limited and the involvement of female farmers in such activities has not received proper concern.

We, therefore, aimed to investigate gender differences in intra-household adaptation choices in response to salinity intrusion and factors affecting the choices.

We completed 117 interviews of male household heads and 117 interviews of their wives with 29 couples in Soc Trang, 26 in Ben Tre, and 62 in Tien Giang, the three coastal rice-producing provinces in the Mekong Delta.

To represent farmers' adaptation to salinity intrusion, we examine the number of adaptive measures that farmers want to use and their choices. A negative binomial model and a logit model were used to identify factors affecting the number of adaptive measures that farmers intend to take and factors affecting farmers' intention to adopt a particular adaptive measure.

# Results

Lack of capital is the highest-ranked obstacle for both wives and husbands in

implementing adaptive measures. Other difficulties for wives and husbands include lack of labor, access to technology, difficulties in selling rice, and lack of information about adaptive measures.

Factors affecting the number of adaptive measures of husbands are different from of wives. The household those economic-related factors are statistically significant for husbands, while it's the institutional/social support and education that are most important for wives. If wives receive more education, attend more training on adaptation, and have more participation in formal institutions, they are willing to adopt more adaptive measures.

There exists disparity а between determinants of wives' and husbands' intention to choose particular adaptive measures. Education level significantly increases wives' intention to change part of their rice farm to other crops, to save rainwater for daily use, and to seek other income sources. Participation in formal Farmers' institutions (e.g. Union. Women's Union, Veterans Association) increases wives' intention to change part of their rice farm to other crops and to seek other income sources. Wives who have participated in training on adaptation to salinity intrusion are more likely to change part of their rice farm to other crops. Three factors affecting husbands' intention to seek other income sources are the percentage of rice yield loss in the last season, education, and farm income.

## **Policy Implications**

Gender roles should be taken into account in the policy design. Information regarding adaptation to salinity intrusion should consider gender-appropriate themes and approaches. Training on adaptation to salinity intrusion should be organized at flexible schedules and convenient places to allow more wives to join. Different adaptation information channels for wives and husbands should be designed to disseminate adaptation information. Increased access to education, training, and participation in formal institutions for wives may contribute to their increased interest in adopting adaptive measures.

The Environment for Development initiative is a capacity-building program in environmental economics focused on international research collaboration, policy advice, and academic training. It consists of centres in Central America, Chile, China, Colombia, Ethiopia, Ghana, India, Kenya, Nigeria, South Africa, Sweden (University of Gothenburg), Tanzania, Vietnam, Uganda, and the US (Resources for the Future). Financial support is provided by the Swedish International Development Cooperation Agency (Sida).