



UNITED NATIONS
UNIVERSITY
UNU-EHS
Institute for Environment
and Human Security



A GERMAN - VIETNAMESE
INITIATIVE

Household Survey in Tra Cu
*“From Vulnerability Assessment
 to Adaptation Options” within the WISDOM Project*

| | | |
|---------------------|--|--|
| Interviewee: | <i>Name:</i> <i>Name of hh-head:</i> <i>Tel:</i> | Household Nr <i>(sampling list):</i> Questionnaire Nr.: |
| Interviewer: | | Data Entry: |
| Date: | | Time <i>(beginning):</i> |
| Hamlet: | | Commune: |

Dear,

Thank you very much for coming here and taking the time to talk with us. The research project is part of cooperation between Vietnam and Germany. As you might already know, we are trying to learn more about the situation in your hamlet. Your knowledge and experience can help us to understand and find ways how to improve the circumstances for the people in rural areas of the Mekong Delta. The interview will take one to one and a half hours. The things you tell us will be kept confidential and will only be used for scientific purposes.

Thank you very much!

1. General Household Information

| | | | | | | | |
|--|----------------------------|---------|---|-------------------|-------------------------------|--------------------------------|--|
| Can you describe the household members (all people living in your house and the ones which are supported by you or support you)? Please start with yourself. | | | | | | | |
| 1.1 Are you the household head? | | | | | | Yes | No |
| 1.2 Relation to hh-head (1) | 1.3 Sex (2) | 1.4 Age | 1.5 Ethnicity (3) | 1.6 Education (4) | 1.7 Main source of income (5) | 1.8 Other source of income (5) | 1.9 Membership (7) |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| (1) | 1: Head 2: Wife/husband | | 3: Son/daughter 4: Son/daughter-in-law | | 5: Father 6: Mother | | 7: grandson/daughter (in law) 99: others... |
| (2) | 1: male | | 2: female | | | | |
| (3) | 1: Kinh | | 2: Khmer | | 3: Chinese | | 99: other |
| (4) | 1: never went to school | | 3: secondary/high school | | 5: university completed | | 99: other |
| | 2: primary school | | 4: vocational/college | | 0: younger than 6 years | | |
| (5) | 1: crop farming | | 4: fishing | | 7: trading | | 10: teacher |
| | 2: aquaculture | | 5: worker | | 8: handicraft | | 11: remittances |
| | 3: livestock | | 6: off-farm labor | | 9: gov. staff | | 12: unemployed |
| (6) | 1: party | | 3: farmer assoc. | | 5: youth union | | 7: pagoda |
| | 2: charity group | | 4: women union | | 6: veteran | | 8: cooperative |
| | | | | | | | 0: none |
| | | | | | | | 99: others |

| | | | |
|--|-----------------------------|-----------|----------------------------|
| Is your household classified as poor? | | | |
| 1.10 At the moment | Not poor | Near-poor | Poor |
| 1.11 Have you been classified different before? | Yes (continue with 1.11) | | No (continue with 1.13) |
| 1.12 How? | Not poor | Near-poor | Poor |
| 1.13 When (which year) did it change? | | | |

| | | | | |
|--|---------------------|------------------|------------------|------------------|
| What kind of agricultural/aquaculture land do you hold? | | | | |
| 1.14 How many plots/ponds do you have? | | | | |
| 1.15 What is the size of the plots in ha? (max three; biggest ones) (small cong=0,1 ha) (big cong = 0,13 ha) | | A | B | C |
| 1.16 What is the ownership for each of these plots? | | A | B | C |
| 1 Family land 2 Borrowed 3 Leased 99 others | | | | |
| | Only 1 product/year | Product Season 1 | Product Season 2 | Product Season 3 |
| Name of the season | | | | |
| 1 Rice 3 Corn 5 freshwater aquaculture | | 7 Fruit tree | | |
| 2 Sugar cane 4 Vegetable 6 saltwater aquaculture | | 99 others | | |
| 1.16 Main agricultural production area | | | | |
| 1.17 Yield per ha in 2010/2011 (2011 if only 1 season) in kg | | | | |
| 1.18 Yield per ha (average) in kg (cross if first season of production) | | | | |

| | | | | |
|---|--|--|--|--|
| 1.19 Yield per ha (max) in kg (cross if first season of production) | | | | |
| 1.20 Other land | | | | |
| 1.21 Yield per ha in 2010/2011 (2011 if only 1 season) in kg | | | | |
| 1.22 Yield per ha (average) in kg (cross if first season of production) | | | | |
| 1.23 Yield per ha (max) in kg (cross if first season of production) | | | | |

| 1.24 Which of these productive assets do you possess to generate income? | | | |
|--|----------|-----------------|----------|
| Assets | How many | Assets | How many |
| Agric machinery | | Cattle | |
| Aquacultural machine | | Pig | |
| Pumping engine | | Poultry | |
| Electric motor | | Individual dyke | |
| Hand well | | Other.... | |

2. Risk perception

| Which major natural hazards did you experience in the last 10 years? | | Which natural risks will be of significant importance in the next 10 years? | |
|--|--------------------------|---|---------------------------|
| Natural hazard experienced (1) | Ranking | Natural risks in future (1) | Ranking |
| 2.1 | | 2.4 | |
| 2.2 | | 2.5 | |
| 2.3 | | 2.6 | |
| 1 Salinisation | 3 Flood related salinity | 5 Crop diseases | 7 Drought |
| 2 Tidal flooding | 4 Flood related diseases | 6 Livestock diseases | 8 Water quality |
| | | | 9 Undergr. water scarcity |
| | | | 99: others |

| Which major socio-economic hazards did you experience in the last 10 years? | | Which socio-economic risks will be of significant importance in the next 10 years? | |
|---|---------------------|--|---------------------|
| Socio-economic hazard experienced (1) | Ranking | Socio-economic risks in future (1) | Ranking |
| 2.7 | | 2.10 | |
| 2.8 | | 2.11 | |
| 2.9 | | 2.12 | |
| 1 Unemployment | 3 Low output prices | 5 Debt to reimburse | 7 Lack of land |
| 2 Sickness/health | 4 High input prices | 6 Lack of electricity | 8 Lack of knowledge |
| | | | 9 Transportation |
| | | | 99: others |

| | | | | |
|--|-----------------|-------------|----------|------------------|
| 2.13. Did you ever hear about Climate change? | Yes | | No | |
| 2.14. How important do you consider it to be? | 1 Not important | 2 important | | 3 very important |
| 2.15. How has weather changed in the past 30 years? | 1 Worse | 2 normal | 3 better | 88 don't know |
| 2.16. How will weather change in the next 30 years? | 1 Worse | 2 normal | 3 better | 88 don't know |
| 2.17. Do you think that you will have to adapt to these changes? | Yes | | No | |

| How does/will tidal flooding affect you? | | | | |
|--|--------------------------|-------------------------|---------------------------|---------------|
| 2.18 Does tidal flooding occur regularly and in which intensity? | | | | |
| 1 every year severe | 3 many years severe | 5 some years little | 0 never occurred | |
| 2 every year little | 4 few years severe | 6 first time to occur | 99 other | |
| 2.19 How did it change in the last 30 years? | 1Worse | 2 Normal | 3 Better | 88 Don't know |
| 2.20 What changed when comparing with the past? (check max. 3 answers) | | | | |
| 1 normal duration | 4 starting earlier | 7 ending later | 10 lower flood level | |
| 2 longer duration | 5 starting later | 8 unchanged flood level | 88 Don't know | |
| 3 shorter duration | 6 ending earlier | 9 higher flood level | 99: others | |
| 2.21 Why did it develop like that? (check max. 3 answers) | | | | |
| 1Temperature | 4 Sea wind | 3 Water from upstream | 7 God | 99 others |
| 2 Rain | 5 Sluice gate operation | 6 Sea level rise | 88 Don't know | |
| 2.22 In which years was it most adverse? (Ranking) | 1. | 2. | 3. | |
| 2.23 What was the main reason for the most recent event? | | | | |
| 1Temperature | 4 Sea wind | 3 Water from upstream | 7 God | 99 others |
| 2 Rain | 5 Sluice gate operation | 6 Sea level rise | 88 Don't know | |
| 2.24 How much of your harvest was lost due to tidal flooding? (in % for most recent case of adverse affection) | | | | |
| 2.25 What was the main reason for losing production? (one option for most recent case of adverse affection) | | | | |
| 1 normal duration | 4 starting earlier | 7 ending later | 10 lower flood level | |
| 2 longer duration | 5 starting later | 8 unchanged flood level | 88 Don't know | |
| 3 shorter duration | 6 ending earlier | 9 higher flood level | 99: others | |
| 2.26 Were there any other effects of tidal flooding? (check max. 3 answers) | | | | |
| 1House got flooded | 3 Broken dyke | 5 quality of land | 0 no other effects | |
| 2 Transport problem | 4 Product quality | 6 water in the pond | 99 others | |
| 2.32 Was there an early warning about tidal flooding levels? | Yes | | No | |
| 2.33 Who informed you? (multiple answers) | 1 TV /Radio | 2 Family/Friends | 3 Extension/Government | 99 Other |
| 2.33 How will it change in the next 30 years? | 1 Worse | 2 Normal | 3 Better | 88 Don't know |
| 2.34 What will change? (check max. 3 answers) | | | | |
| 1 normal duration | 4 starting earlier | 7 ending later | 10 lower flood level | |
| 2 longer duration | 5 starting later | 8 unchanged flood level | 88 Don't know | |
| 3 shorter duration | 6 ending earlier | 9 higher flood level | 99: others | |
| 2.35 Why will it develop like that? (check max. 3 answers) | | | | |
| 1Temperature | 4 Sea wind | 3 Water from upstream | 7 God | 99 others |
| 2 Rain | 5 Sluice gate operation | 6 Sea level rise | 88 Don't know | |
| 2.36 Do you think you will have to adapt to these changes in future? (do not change from yes to no if they don't know how in the next section!) | Yes | | No | |
| 2.37 HOW? (check max. 3 answers) | | | | |
| 1: Change crop | 3: Change to livestock | 5: off-farm | 7 Migration | 99: other |
| 2: Change crop calendar | 4: Change to aquaculture | 6: Sell all land | 8 Change variety | |

3. Household Strategies

| Did you do one of the following things in the last years? | | | | |
|---|--|-----------------------------------|--------------------------|-------------------------|
| 3.1. Build an individual dyke or embankment around your field | | | Yes (do not answer 3.6) | No (continue with 3.6) |
| 3.2. What kind of dyke was it? (most recent case) | | | | |
| 1 communal dyke | 3 dyke shared with neighbours | 4 embankment around the field | | |
| 2 individual dyke | | 99 other | | |
| 3.3. When did you build it? (year of most recent case) | | | | |
| 3.4. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3, most recent case) | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99: others |
| 3.5. Was it mainly related to ... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |
| If no | 3.6. Would you build an individual dyke if tidal flooding got worse and you had the financial capital? | | Yes | No |
| 3.7. Do you think it is a good or bad strategy? | | | Good | Bad |
| 3.8. Repair an individual dyke or embankment around your pond (not relevant if no ind. Dyke/embarkment) | | Not relevant (continue with 3.17) | Yes (do not answer 3.15) | No (continue with 3.15) |
| 3.9. What kind of dyke/embankment was it? (most recent case) | | | | |
| 1 communal dyke | 3 dyke shared with neighbours | 4 embankment around pond | | |
| 2 individual dyke | | | | |
| 3.10. When did you build it? (year for most recent case) | | | | |
| 3.11. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3, most recent case) | | | | |
| 1 Salinisation | 3 Rain | 5 Broken (bad material) | 0 not risk related | |
| 2 Flooding | 4 Crop/shrimp diseases | 6 Broken (flooding) | 99: others | |
| 3.12. Was it mainly related to ... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |
| If no | 3.13. Would you repair a dyke/embankment if it would break? | | Yes | No |
| If n.r | 3.14. Do you think it is a good or bad strategy? | | Good | Bad |
| 3.19. Reproduce after loss of harvest (in the same season) – also applies for aquaculture | | | Yes (do not answer 3.25) | No (continue with 3.25) |
| 3.20. When did you have to do that? (season of which year, most recent case) | | | | |
| 3.21. Did you refill the field or reproduce all of it? – also applies for aquaculture | | Refill | Reproduce all | |
| 3.22. Comments: | | | | |
| 3.23. Did you do it cope with one of the following problems? (check the following options, max. 3) | | | | |
| 1 Salinisation | 2 Tidal flooding | 3 Crop/shrimp diseases | 0 Not risk related | 99: others |
| 3.24. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |

| | | | |
|--------------|---|------|-----|
| <i>If no</i> | 3.25. Would you reproduce if you lost your harvest? | Yes | No |
| | 3.26. Do you think it is a good or bad strategy? | Good | Bad |

| | | | | |
|---|--|-----------------------------|--------------------------|-------------------------|
| 3.27. Pump freshwater in the field to reduce salinity (not for irrigation purposes) | | Normal (continue with 3.37) | Yes (do not answer 3.34) | No (continue with 3.34) |
| 3.28. When did you have to do that more than normally? (year of the most recent case) | | | | |
| 3.29. From which source did you take the water? | | | | |
| 1 River/canal 2 Underground water/dwell 99 other source | | | | |
| 3.30. Did you do it cope with one of the following problems? (check the following options, max. 3 for the most recent case) | | | | |
| 1 Unemployment 3 Salinisation 5 High input prices 7 Crop diseases 0 not risk related 2 Sickness/health 4 Flooding 6 Low output prices 8 Debt to reimburse 99: others | | | | |
| 3.31. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |
| <i>If no</i> | 3.32. Would you apply the strategy if there were higher flood levels levels in your field? | Yes | No | |
| | 3.33. Do you think it is a good or bad strategy? | Good | Bad | |

| | | | | |
|---|--|-----------------------------|--------------------------|-------------------------|
| 3.34. Reduce input factors (e.g. to reduce costs in difficult situations, improve health or environment) | | Normal (continue with 3.46) | Yes (do not answer 3.43) | No (continue with 3.43) |
| 3.35. When did you reduce them more than normally? (most recent case) | | | | |
| 3.36. Which in particular? (in the previously stated year) | | | | |
| 1 Fertilizer (crops) 3 Seeds (crops) 5 Medicine (aquaculture) 7 Machine rent 2 Pesticides/ 4 Feed (aquaculture) 6 Labour 99 others Herbicides (crops) | | | | |
| 3.37. Did you do it cope with one of the following problems? (check the following options, max. 3) | | | | |
| 1 Unemployment 3 Salinisation 5 High input prices 7 Crop diseases 0 not risk related 2 Sickness/health 4 Flooding 6 Low output prices 8 Debt to reimburse 99: others | | | | |
| 3.38. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |
| <i>If no</i> | 3.39. Would you reduce fertilizer if you needed to reduce costs? | Yes | No | |
| <i>If n.r</i> | 3.40. Do you think it is a good or bad strategy? | Good | Bad | |

| | | | | |
|---|--|-----------------------------|--------------------------|-------------------------|
| 3.41. Increase input factors (to overcome a difficult situation) | | Normal (continue with 3.55) | Yes (do not answer 3.52) | No (continue with 3.52) |
| 3.42. When did you increase them more than normally? (year of most recent case) | | | | |
| 3.43. Which in particular? (check max. one) | | | | |
| 1 Fertilizer (crops) 3 Seeds (crops) 5 Medicine (aquaculture) 7 Machine rent 2 Pesticides/ 4 Feed (aquaculture) 6 Labour 99 others Herbicides (crops) | | | | |
| 3.44. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3) | | | | |
| 1 Unemployment 3 Salinisation 5 High input prices 7 Crop diseases 0 not risk related 2 Sickness/health 4 Flooding 6 Low output prices 8 Debt to reimburse 99: others | | | | |
| 3.45. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |

| | | | |
|---------------|--|------|-----|
| <i>If no</i> | 3.46. Would you increase fertilizer/ more medication (<i>aquaculture</i>) if you needed to generate a higher income in the short term? | Yes | No |
| <i>If n.r</i> | 3.47. Do you think it is a good or bad strategy? | Good | Bad |

| | | | | |
|--|---|-----------------------------------|--------------------------|--------------------------|
| 3.48. Take children out of school (<i>to cope with a difficult situations) – only relevant if there are children up to high school age</i>) | | Not relevant (continue with 3.63) | Yes (do not answer 3.60) | No (continue with 3.60) |
| 3.49. In which year did you take them out of school? (most recent case) | | | | |
| 3.50. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3) | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99: others |
| 3.51. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | Experienced past problems | | Expected future problems |
| <i>If no</i> | 3.52. Would you take them out of school if you would be in a difficult situation? | | | No |
| <i>If n.r</i> | 3.53. Do you think it is a good or bad strategy? | | | Bad |

| | | | | |
|--|---|-----------------------------|--------------------------|--------------------------|
| 3.54. Buy food on credit (<i>to cope with a difficult situations, not relevant if normal</i>) | | Normal (continue with 3.74) | Yes (do not answer 3.71) | No (continue with 3.71) |
| 3.55. In which year did you have to buy more on credit than normal (most recent case)? | | | | |
| 3.56. Did you do it cope with one of the following problems? (check the following options, max. 3) | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99: others |
| 3.57. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | Experienced past problems | | Expected future problems |
| 3.58. From whom did you borrow the most? (for the most recent case) | | | | |
| 1 Shop-owner/market | 2 Family | 3 Friends/Neighbours | 99: others | |
| 3.59. At which interest rates? (in % per month) | | | | |
| 3.60. Lending period? (period when more borrowed than normal, in weeks) | | | | |
| <i>If no</i> | 3.61. Would you buy food on credit if you had financial problems? | | | No |
| <i>If n.r</i> | 3.62. Do you think it is a good or bad strategy? | | | Bad |

| | | | | |
|--|------------------------|-----------------------------|--------------------------|--------------------------|
| 3.63. Buy input factors on credit (<i>to cope with a difficult situations</i>) | | Normal (continue with 3.86) | Yes (do not answer 3.83) | No (continue with 3.83) |
| 3.64. Which in particular? (check max. one) | | | | |
| 1 Fertilizer | 2 Pesticides/Herbicide | 3 Seeds | 4 Medicine (aquaculture) | 5 Feed (aquaculture) |
| | | | | 99 others |
| 3.65. When did you have to take a higher credit than normal? (season of which year, most recent case) | | | | |
| 3.66. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3) | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99: others |
| 3.67. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | Experienced past problems | | Expected future problems |
| 3.68. From whom did you borrow the most? (for the most recent case) | | | | |
| 1 Shop-owner/market | 2 Family | 3 Friends/Neighbours | 99: others | |
| 3.69. At which interest rates? (in % per month for the previously stated one) | | | | |

| | | | |
|---|---|------|-----|
| 3.70. Lending period? (period when more borrowed than normal, in weeks) | | | |
| If no | 3.71. Would you buy /buy more fertilizer/medication (<i>aquaculture</i>) on credit if you had financial problems? | Yes | No |
| If n.r | 3.72. Do you think it is a good or bad strategy? | Good | Bad |

| | | | | |
|---|--|---------------------------|-------------------------|-----------------------------|
| 3.73. Take a loan (additional loan / bigger loan than normal) | | Yes (don't answer 3.95) | No (continue with 3.95) | Normal (continue with 3.98) |
| 3.74. For what did you have to take an additional/bigger loan? (check most recent one) | | | | |
| 1 Fertilizer/chemical | 3 Livestock | 5 Build a house | 7 Buy land | 9 Health |
| 2 Machine /Labour | 4 Feed | 6 Build a dyke | 8 Education | 10 Migrate |
| | | 11 Consumption good | | |
| | | 99 others | | |
| 3.75. In which year? (for the three most recent one) | | | | |
| 3.76. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3, for the most recent case) | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99 others |
| 3.77. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | | Expected future problems |
| 3.78. Lending period? (for the most recent one) | | | | |
| 3.79. From whom? (check one of the following options) | | | | |
| 1 Agribank | 3 Private lender | 5 Trader | 7 IMPP | 9 Government program |
| 2 Socialbank | 4 Family/Friends | 6 Women Union | 8 Saving group | 99 others |
| 3.80. At which interest rates? (for the previously stated loan) | | | | |
| If no | 3.81. Would you take a loan from the Agribank if you had financial problems and needed 15 Mio VND? | | Yes | No |
| If n.r | 3.82. Do you think it is a good or bad strategy? | | Good | Bad |

| | | | |
|---|--|---------------------------|--------------------------|
| 3.83. Sell productive assets | | Yes | No (continue with 3.104) |
| 3.84. Which assets? (most recent one, only risk related ones) | | | |
| 1 Land | 3 House | 5 Pig | 99 others |
| 2 Machine | 4 Cattle | 6 Motorbike | |
| 3.85. In which year? (most recent case) | | | |
| 3.86. Did you do it cope with one of the following problems? (check the following options, max. 3 for the most recent case) | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop diseases |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse |
| | | 99 others | |
| 3.87. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | |
| | | Expected future problems | |
| If no, also if yes | 3.88. Would you sell part of your land if you had severe problems? | | No |
| 3.89. Do you think it is a good or bad strategy? | | Good | Bad |

| | | | |
|---|------------------|--------------------|--------------------------|
| 3.90. Invest in assets | | Yes | No (continue with 3.114) |
| 3.91. Which asset did you invest? (only 1; most recent one) | | | |
| 1 Land | 3 House | 4 Individual dyke | 6 Household equipment |
| 2 Machine | 4 Livestock | 5 Motorbike | 99 others |
| 3.92. In which year? (most recent one) | | | |
| 3.93. How did you finance it? (only 1; most recent one) | | | |
| 1 Bank loan | 3 Family/friends | 5 Increased income | 7 Womans Union/IMPP |

| | | | | | | | | | |
|--|--|--|--|---------------------------|--|--------------------------|--|--------------------|--|
| 2 Private lender | | 4 Saving | | 6 Government program | | 99 others | | | |
| 3.94. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3) | | | | | | | | | |
| 1 Unemployment | | 3 Salinisation | | 5 High input prices | | 7 Crop diseases | | 0 not risk related | |
| 2 Sickness/health | | 4 Flooding | | 6 Low output prices | | 8 Debt to reimburse | | 99 others | |
| 3.95. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | | | Experienced past problems | | Expected future problems | | | |
| <i>If no, also if yes</i> | | 3.96. In which asset would you invest if a family member/friend gave you 15 Mio and you could take a loan for the rest of the needed capital? (check only 1 option) | | | | Yes | | No | |
| 1 Land | | 3 House | | 4 Individual dyke | | 6 Household equipment | | | |
| 2 Machine | | 4 Livestock | | 5 Motorbike | | 99 others | | | |
| 3.97. Do you think it is a good or bad strategy? | | | | | | Good | | Bad | |

| | | | | | | | | | |
|---|--|--|--|---------------------------|--|--------------------------|--|--------------------------|--|
| 3.98. Changes in the crop/production calendar (also applies for aquaculture) | | | | | | Yes | | No (continue with 3.133) | |
| 3.99. How often did you change it in the last 10 years? | | | | | | | | | |
| 3.100. For which product? (most recent one) | | | | | | | | | |
| 1 Rice | | 3 Corn | | 5 freshwater aquaculture | | 7 Fruit tree | | | |
| 2 Sugar cane | | 4 Vegetable | | 6 saltwater aquaculture | | 99 others | | | |
| 3.101. In which year? (most recent one) | | | | | | | | | |
| 3.102. How? (check max. 2 for the most recent one) | | | | | | | | | |
| 1 Earlier | | 3 Longer | | 99 others | | | | | |
| 2 Later | | 4 Shorter | | | | | | | |
| 3.103. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3) | | | | | | | | | |
| 1 Unemployment | | 3 Salinisation | | 5 High input prices | | 7 Crop diseases | | 0 not risk related | |
| 2 Sickness/health | | 4 Flooding | | 6 Low output prices | | 8 Debt to reimburse | | 99 others | |
| 3.104. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | | | Experienced past problems | | Expected future problems | | | |
| <i>If no</i> | | 3.105. Would you change the crop/production calendar if others changed their calendar? | | | | Yes | | No | |
| 3.106. Do you think it is a good or bad strategy? | | | | | | Good | | Bad | |

| | | | | | | | | | |
|--|--|---|--|---------------------------|--|--------------------------|--|--------------------------|--|
| 3.107. Change to another crop/variety/species | | | | | | Yes | | No (continue with 3.142) | |
| 3.108. What did you change | | | | | | | | | |
| 3.109. When? (which season of which year) | | | | | | | | | |
| 3.110. Did you do it cope with/adapt to one of the following problems? (check the following options, max. 3) | | | | | | | | | |
| 1 Unemployment | | 3 Salinisation | | 5 High input prices | | 7 Crop diseases | | 0 not risk related | |
| 2 Sickness/health | | 4 Flooding | | 6 Low output prices | | 8 Debt to reimburse | | 99 others | |
| 3.111. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | | | Experienced past problems | | Expected future problems | | | |
| <i>If no</i> | | 3.112. Would you change to corn production/ other species (for aquaculture) if others did so? | | | | Yes | | No | |
| 3.113. To which species would you change? (for aquaculture only) | | | | | | | | | |
| 3.114. Do you think it is a good or bad strategy? | | | | | | Good | | Bad | |
| 3.115. After what time can you say that it was a good decision to change the crop/other species? (enter three most important ones and circle the most important) | | | | | | | | | |
| 1 after one season | | 2 after one year | | 3 after 3 years | | 4 after 10 years | | 99 others | |

| | | | | |
|--|--|------------------------------|--------------------------|--------------------------|
| 3.116. Migration | | Normal (continue with 3.158) | Yes (don't answer 3.155) | No (continue with 3.155) |
| 3.117. How many family members migrated? | | | | |
| 3.118. When did he/she migrate? (year for the most recent case) | | | | |
| 3.119. For how long do the migrant go? (most recent case) | | | | |
| 1 Few weeks every year 3 Few months in every year 5 permanent 99 others | | | | |
| 2 Few weeks in some years 4 Few months in some years 6 not clear yet (migrated recently) | | | | |
| 3.120. What do the migrants do? (most recent case) | | | | |
| 1 Construction 3 Farm worker 5 Education 99 others | | | | |
| 2 Factory 4 Household 6 High-skill jobs | | | | |
| 3.121. Where did the migrants go? (most recent case) | | | | |
| 3.122. Did you do it cope with/adapt to one of following problems? (check the following options, max. 3 for the most recent migrant) | | | | |
| 1 Unemployment 3 Salinisation 5 High input prices 7 Crop diseases 0 not risk related | | | | |
| 2 Sickness/health 4 Flooding 6 Low output prices 8 Debt to reimburse 99 others | | | | |
| 3.123. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |
| If no | 3.124. Would you migrate/send child to HCMC to work in a factory if you would lose most of your harvest for the second year in a row and had the possibility to do so? | Yes | No | |
| If n.r | 3.125. Do you think it is a good or bad strategy? | Good | Bad | |

| | | | | |
|---|--|------------------------------|--------------------------|--------------------------|
| 3.126. Seek other alternative/additional jobs? (normal if it happens every year in the same way and not risk related) | | Normal (continue with 3.167) | Yes | No (continue with 3.164) |
| 3.127. Which jobs? (for the most recent case) | | | | |
| 1 Construction 3 Farm worker 5 Open shop 7 Repair | | | | |
| 2 My Phong 4 Household 6 Handicraft 99 others | | | | |
| 3.128. When did you seek a new job (year of the most recent case) | | | | |
| 3.129. Did you do it cope with/adapt to one of following problems? (check the following options, max. 3 for the most recent case) | | | | |
| 1 Unemployment 3 Salinisation 5 High input prices 7 Crop diseases 0 not risk related | | | | |
| 2 Sickness/health 4 Flooding 6 Low output prices 8 Debt to reimburse 99 others | | | | |
| 3.130. Was it mainly related to... (for which of the options, if both past and future relation apply) | | Experienced past problems | Expected future problems | |
| If no | 3.131. Would you work for My Phong if you would lose most of your harvest for the second year in a row and had the possibility to do so? | Yes | No | |
| If n.r | 3.132. Do you think it is a good or bad strategy? | Good | Bad | |

| | | | | |
|--|--|------------------------------|--------------------------|--------------------------|
| 3.133. Did you work more in existing jobs? (normal if it they work every year in a specific season more than in others, not risk related) | | Normal (continue with 3.175) | Yes (don't answer 3.172) | No (continue with 3.172) |
| 3.134. For which activity in particular? (max. one) | | | | |
| 1 Construction 3 Farm worker 5 Repair 99 others | | | | |
| 2 My Phong 4 own farm 6 Handicraft | | | | |
| 3.135. When did you do that? (which year for the most recent case) | | | | |
| 3.136. Did you do it cope with/adapt to one of following problems? (check the following options, max. 3) | | | | |
| 1 Unemployment 3 Salinisation 5 High input prices 7 Crop diseases 0 not risk related | | | | |
| 2 Sickness/health 4 Flooding 6 Low output prices 8 debt to reimburse 99 others | | | | |

| | | | | |
|---|--|---------------------------|--------------------------|-----|
| 3.137. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | Experienced past problems | Expected future problems | |
| <i>If no</i> | 3.138. Would you increase the scope of off-farm jobs if you had problems with your own production? | | Yes | No |
| <i>If n.r</i> | 3.139. Do you think it is a good or bad strategy? | | Good | Bad |

| | | | | |
|---|--|--|--------------------------|---------------------------------|
| 3.140. Upgrade/Elevate your house <i>(only relevant for flood affected hh)</i> | | Not relevant <i>(continue with 3.185)</i> | Yes | No <i>(continue with 3.185)</i> |
| 3.141. What did you do? | | | | |
| 3.142. When did you do it? | | | | |
| 3.143. Did you do it to better cope with following problems? <i>(check the following options, max. 3 reasons)</i> | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop/shrimp diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99 others |
| 3.144. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | Experienced past problems | Expected future problems | |
| <i>If no</i> | 3.145. Would you elevate your house if flood levels would be thirty cm higher than normal in three years in a row? | | Yes | No |
| <i>If n.r</i> | 3.146. Do you think it is a good or bad strategy? | | Good | Bad |

| | | | | |
|---|---|--|--------------------------|---------------------------------|
| 3.147. Invest in livestock | | Normal <i>(continue with 3.194)</i> | Yes | No <i>(continue with 3.194)</i> |
| 3.148. In what kind of livestock did you invest (most recent case)? | | | | |
| 1 Cattle | 3 Poultry | 5 Saltwater aquaculture | 99 others | |
| 2 Pig | 4 Freshwater aquaculture | | | |
| 3.149. How many animals did you buy in the most recent case? | | | | |
| 3.150. When did you do it? | | | | |
| 3.151. Did you do it to better cope with following problems? <i>(check the following options, max. 3 reasons)</i> | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop/shrimp diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99 others |
| 3.152. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | Experienced past problems | Expected future problems | |
| <i>If no</i> | 3.153. Would you make livestock farming to your main source of income if salinity/flooding destroyed your harvest more regularly? | | Yes | No |
| <i>If n.r</i> | 3.154. Do you think it is a good or bad strategy? | | Good | Bad |

| | | | | |
|---|----------------|--|--------------------------|---------------------------------|
| 3.155. Build a gate in your individual dyke/embankment | | Not relevant <i>(continue with 3.185)</i> | Yes | No <i>(continue with 3.185)</i> |
| 3.156. What kind of gate is it? | | | | |
| 3.157. What are the benefits of it? | | | | |
| 3.158. When did you do it? | | | | |
| 3.159. Did you do it to better cope with following problems? <i>(check the following options, max. 3 reasons)</i> | | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop/shrimp diseases | 0 not risk related |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse | 99 others |
| 3.160. Was it mainly related to... | | Experienced past problems | Expected future problems | |

| | | | |
|---|--|------|-----|
| <i>(for which of the options, if both past and future relation apply)</i> | | | |
| <i>If no</i> | 3.161. Would you build a gate if flood levels would be thirty cm higher than normal in three years in a row? | Yes | No |
| <i>If n.r</i> | 3.162. Do you think it is a good or bad strategy? | Good | Bad |

| | | | |
|---|----------------|---------------------------|-----------------------------------|
| 3.163. Other Strategy which was applied in 2011 in the context of tidal flooding? | | Yes | No (<i>continue with 3.189</i>) |
| 3.164. What did you do? | | | |
| 3.165. When? | | | |
| 3.166. Did you do it to better cope with following problems? (<i>check the following options, max. 3 reasons</i>) | | | |
| 1 Unemployment | 3 Salinisation | 5 High input prices | 7 Crop/shrimp diseases |
| 2 Sickness/health | 4 Flooding | 6 Low output prices | 8 Debt to reimburse |
| | | | 99 others |
| 3.167. Was it mainly related to... <i>(for which of the options, if both past and future relation apply)</i> | | Experienced past problems | Expected future problems |
| Comments: | | | |
| 3.168. Do you think it is a good or bad strategy? | | Good | Bad |

| | | | |
|---|--|------|-----------------------------------|
| 3.169. Other Strategy option which could be applied in the context of tidal flooding | | Yes | No (<i>continue with 3.189</i>) |
| 3.170. What would you do? | | | |
| Comments: | | | |
| 3.171. Do you think it is a good or bad strategy? | | Good | Bad |

| | | | | |
|---|--------------|-----------------------------|-------------------------|--------------|
| 3.189 Which option would you prefer when salinity destroys the harvest? | | | | |
| | 1. Reproduce | 2. Increase non-farm labour | 3. Short-term migration | 4. Take loan |
| 1. Reproduce | | | | |
| 2. Increase non-farm labour <i>(e.g. construction)</i> | | | | |
| 3. Short-term migration | | | | |
| 4. Take loan | | | | |

| | | | | |
|---|-----------------------------------|------------------------|-------------------------------|------------------------|
| 3.150 Which option would be more adapted to changing salinity intrusion in the next 15 years? | | | | |
| | 1. Invest in ind. Dyke/embankment | 2. Long-term migration | 3. Change production calendar | 4. Change species/crop |
| 1. Invest in ind. Dyke/embankment | | | | |
| 2. Long-term migration | | | | |
| 3. Change production calendar | | | | |
| 4. Change species/crop | | | | |

3. Government Strategies

| What did government do to improve situation? | | |
|--|---|--|
| 4.1. Compensation 2011 | Yes | No |
| 4.2. Did you receive compensation payments in 2011? | Yes | No |
| 4.3. Did you receive compensation payments before? | Yes | No |
| 4.4. For how many ha? | | |
| 4.5. How much did you get per ha? | | |
| 4.6. What did you do with the money? <i>(check max. 3 options)</i> | | |
| 1 Reproduce 2 Buy inputs | 3 Buy food 4 Buy other goods | 5 Education 6 Change production 99 others |
| 4.7. In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.8. Dredge inland canal (level 3 and 4) | Yes | No <i>(continue with 4.26)</i> |
| 4.9. When did they dredge the canal closest to your field the last time? <i>(year for the most recent case)</i> | | |
| 4.10. How far is your land from the next canal? <i>(3rd level) (4th level)</i> | | |
| 4.11. How did you benefit from it? <i>(check max. three options for the most recent case)</i> | | |
| 1 More fresh water 2 Better water quality | 3 Reliable water supply 4 Lower costs fertilizer/chemicals | 5 Decreased salinisation 6 Lower risk of flood tide 99 others |
| 4.12. In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.13. Provide loan for production <i>(only applies if it is a loan scheme financed by the government, not individual loans at banks where you get administrative support)</i> | Yes | No |
| 4.14. Did you get a loan? | Yes | No <i>(continue with 4.41)</i> |
| 4.15. How often did you get it in the last 10 years? | | |
| 4.16. When did you get it? <i>(year for the most recent one)</i> | | |
| 4.17. How much? <i>(in VND for the most recent one)</i> | | |
| 4.18. At what interest rate? <i>(in % per month for the most recent)</i> | | |
| 4.19. What did you do with the money? | | |
| 1 Reproduce 2 Buy fertilizer/chemicals | 3 Buy seeds 4 Change production | 5 Education 6 Buy consumption goods 7 Buy food 8 livestock 99 others |
| 4.20. In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.21. Financial support for building an individual dyke/embankment | Yes | No |
| 4.22. Did you get the support? | Yes | No <i>(continue with 4.53)</i> |
| 4.23. How often did you get the support in the last 10 years? | | |
| 4.24. When did you get it? <i>(year for the most recent one)</i> | | |
| 4.25. How much did you get? <i>(in VND for the most recent one)</i> | | |
| 4.26. In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.27. Provide agricultural /aquaculture training classes by government? | Yes | No |

| | | | |
|-------|--|--------------------------------------|----------------------------------|
| 4.28. | Did you participate in training classes (<i>also IMPP</i>)? | Yes | No (<i>continue with 4.68</i>) |
| 4.29. | In how many trainings did you participate in the last 5 years (<i>either IMPP or DARD</i>)? | | |
| 4.30. | What kind of training class was the last one in which you participated? (<i>most recent one</i>) | | |
| 1 | Product change | 3 Fertilizer/chemicals usage | 5 Marketing methods |
| 2 | New production method | 4 Existing method | 6 Processing and Storage |
| | | | 7 medicine/feed usage |
| | | | 99 others |
| 4.31. | Who offered the last training class? (<i>most recent class</i>) | | |
| 4.32. | When was this class offered? (<i>most recent class</i>) | | |
| 4.33. | What did you change because of the last training classes? (<i>check max three options</i>) | | |
| 1 | change product | 3 change chemicals/fertilizer | 5 change crop calendar |
| 2 | change seeds/variety | 4 change amount of feed and medicine | 6 change marketing |
| | | | 7 change processing and storage |
| | | | 0 nothing |
| | | | 99 others |
| 4.34. | In general, do you think it is a rather good or bad strategy? | Good | Bad |

| | | | |
|--------------|--|------------------------|-----------------------------------|
| 4.35. | Provide vocational training classes | Yes | No |
| 4.36. | Did you participate? | Yes | No (<i>continue with 4.183</i>) |
| 4.37. | In how many trainings did you participate in the last 5 years | | |
| 4.38. | What kind of training class was the last one you participated in? (<i>most recent one</i>) | | |
| 1 | Mechanics | 3 Sewing | 99 others |
| 2 | Handicrafts | 4 Business | |
| 4.39. | Who offered the training class? (<i>most recent class</i>) | | |
| 4.40. | When was this class offered? (<i>most recent class</i>) | | |
| 4.41. | What did you change after participating in the last class? (<i>max. 3 options</i>) | | |
| 1 | open own business | 3 long-term migration | 5 for private purposes |
| 2 | be employee | 4 short-term migration | 99 others |
| 4.42. | In general, do you think it is a rather good or bad strategy? | Good | Bad |

| | | | |
|--------------|---|--------------|----------------------------------|
| 4.43. | Support the formation/standing of a cooperative | Yes | No |
| 4.44. | Are you part of a cooperative? | Yes | No (<i>continue with 4.95</i>) |
| 4.45. | Was it the formation or support for a cooperative? | Formation | Support |
| 4.46. | What kind of cooperative was supported/ initiated? | | |
| 1 | Production | 3 Processing | 99 others |
| 2 | Marketing | 4 Supply | |
| 4.47. | In general, do you think it is a rather good or bad strategy? | Good | Bad |

| | | | |
|-------|---|------|-----------------------------------|
| 4.48. | Propagandise a change in crop/production calendar | Yes | No |
| 4.49. | Did you change your crop/production calendar because of that? | Yes | No (<i>continue with 4.106</i>) |
| 4.50. | When did you change it? (<i>season of which year</i>) | | |
| 4.51. | What did you change? | | |
| 4.52. | In general, do you think it is a rather good or bad strategy? | Good | Bad |

| | | | |
|-------|---|-----|-----------------------------------|
| 4.53. | Propagandise a change in crop/species | Yes | No |
| 4.54. | Did you change your crop/species because of that? | Yes | No (<i>continue with 4.118</i>) |
| 4.55. | What was propagandised? | | |

| | | | |
|-------|---|------|-----------------------------------|
| 4.56. | What did you change? | | |
| 4.57. | When did you change it? (<i>season of which year</i>) | | |
| 4.58. | In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.59. | Early warning about tidal flooding | Yes | No |
| 4.60. | Did you receive early warning about tidal flooding? | Yes | No (<i>continue with 4.128</i>) |
| 4.61. | How? | | |
| 4.62. | In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.63. | Support for building a house for poor people | Yes | No |
| 4.64. | Did you get the support? | Yes | No (<i>continue with 4.139</i>) |
| 4.65. | When did you get the support? (<i>which year</i>) | | |
| 4.66. | In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.67. | Build a dyke | Yes | No |
| 4.68. | Which dyke was it (name or location)? | | |
| 4.69. | <i>When was it built? (which year)</i> | | |
| 4.70. | <i>Does the dyke go through your field?</i> | Yes | No |
| 4.71. | Did you benefit from it? | Yes | No (<i>continue with 4.153</i>) |
| 4.72. | How did you benefit from it? | | |
| | 1 More fresh water 3 reliable water supply 5 Decreased salinisation 7 improved transport 2 Better water quality 4 lower input costs 6 lower risk of flood tide 99 others | | |
| 4.73. | In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.74. | Upgrade the dyke | Yes | No |
| 4.75. | Did you benefit from it? | Yes | No (<i>continue with 4.165</i>) |
| 4.76. | How did you benefit from it? | | |
| | 1 More fresh water 3 reliable water supply 5 decreased salinisation 7 improved transport 2 Better water quality 4 lower input costs 6 lower risk of flood tide 99 others | | |
| 4.77. | When was it upgraded? (<i>which year</i>) | | |
| 4.78. | In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.79. | Operation of the sluice gate by PC/DARD Tra Cu | Yes | No (<i>continue with 4.183</i>) |
| 4.80. | Did you benefit from it? | Yes | No |
| 4.81. | How did you benefit from it? | | |
| 4.82. | What negative consequences did it have for you? | | |
| 4.83. | Who is responsible for the operation of the gate | | |
| 4.84. | In general, do you think it is a rather good or bad strategy? | Good | Bad |
| 4.85. | Other strategy in the context of tidal flooding | Yes | No (<i>continue with 4.181</i>) |

| | | | |
|-----------|---|------|-----|
| 4.86. | Which other strategy | | |
| 4.87. | Did you benefit from it? | Yes | No |
| 4.88. | When? (<i>which year</i>) | | |
| Comments: | | | |
| 4.89. | In general, do you think it is a rather good or bad strategy? | Good | Bad |

| | | | |
|--------------|--|------|-----------------------------------|
| 4.90. | Other strategy you would chose in the context of tidal flooding | Yes | No (<i>continue with 4.189</i>) |
| 4.91. | Which other strategy | | |
| 4.92. | Did you benefit from it? | Yes | No |
| 4.93. | When? (<i>which year</i>) | | |
| Comments: | | | |
| 4.94. | In general, do you think it is a rather good or bad strategy? | Good | Bad |

| | | | | | |
|---|-----------------------------------|-----------------------|-----------------------|--------------------|----------------------------|
| 4. 189 Which option would you prefer in order to be better adapted to tidal flooding in future if you had the choice? | | | | | |
| | 1 Agricult. /aquaculture training | 2 Vocational training | 3 Loan for production | 4 Upgrade the dyke | 5 Operation of sluice gate |
| 1 Agricultural /aquaculture training | | | | | |
| 2 Vocational training | | | | | |
| 3 Loan for production | | | | | |
| 4 Upgrade the dyke | | | | | |
| 5 Operation of sluice gates | | | | | |

THANK YOU VERY MUCH FOR YOUR COOPERATION!

Signature Interviewer

Signature Interviewee
(to confirm the participation at the interview and the receiving of 80 000 VND)

Additional comments and impression

(to be filled in by interviewer)

| General | Time (<i>end of interview</i>) | | | | |
|----------------------------|----------------------------------|------------------------|-----|----|------------------------|
| | PC officer present | | Yes | No | Parts of the interview |
| Interviewee: | Key informant | Yes | No | | |
| | | Production | | | |
| | | Migration | | | |
| | | Institutions | | | |
| | | Training | | | |
| | | other | | | |
| | Impression about the interviewee | | | | |
| Interview situation | General Atmosphere | | | | |
| | Problems | | | | |
| | Other comments | | | | |
| Questionnaire | | | | | |
| <i>Question-nr:</i> | <i>Topic:</i> | <i>Comment/Problem</i> | | | |
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