The five datasets can be merged using identification variables provided in all sets

**Identification variables in all five sets**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Variables provided in GSO's dataset** | **Variables translated into English** | **Description** |
|  | IDHO | HHID | unique household ID which concatenated from variables COMMUNE\_ID, EAID and HHCODE |
|  | MATINH | PROVINCE\_ID | unique province ID provided in the classification of territorial administrative units |
|  | MAHUYEN | DISTRICT\_ID | unique district ID provided in the classification of territorial administrative units |
|  | MAXA | COMMUNE\_ID | unique commune ID provided in the classification of territorial administrative units |
|  | MADIABAN | EAID | enumeration area code within communes |
|  | HOSO | HHCODE | household ID within EA, ranging from 01 to 20 |
|  | KYDIEUTRA | SURVEYMONTH | The month in which household was surveyed on |

**Ho\_Muc4B11**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Variables** | **Question code**  **in SPIA's module** | **Description** |
|  | M4B11\_MA | 4B1.1\_new Q2 | The types of rice harvested in the last 12 months:  1. Year-round ordinary rice  2. Winter-Spring ordinary rice  3. Summer-autumn ordinary rice  4. Tenth-month or autumn-winter rice  5. Ordinary rice planted in terraced field  6. Year-round glutinous rice  7. Year-round specialty rice |
|  | M4B11\_C3 | 4B1.1\_new Q.3 | The cultivated area (m2) of the rice in the last 12 months |
|  | M4B11\_C3AD | 4B1.1\_new Q.3a Day | Sowing calendar - DAY |
|  | M4B11\_C3AM | 4B1.1\_new Q.3a Month | Sowing calendar - MONTH |
|  | M4B11\_C3AY | 4B1.1\_new Q.3a Year | Sowing calendar - YEAR |
|  | M4B11\_C3B | 4B1.1\_new Q.3b | The type of calendar  1. Lunar calendar  2. Gregorian calendar |
|  | M4B11\_C4 | 4B1.1\_new Q.4 | The output (kg rice) harvested in the last 12 months |
|  | M4B11\_C5 | 4B1.1\_new Q.8 | The value (thousand VND) of rice harvested |

**Ho\_Muc4B111A - Adaptive rice-based systems**

| **No.** | **Variables** | **Question code in SPIA's module** | **Description** |
| --- | --- | --- | --- |
|  | M4B111A\_MA | 4B1.1.1 Q.2 | Advice from authorities on:  1. Not cultivating rice in a particular season  2. Shifting from rice to another crop  3. Change in rice sowing/transplanting dates  4. Rice varieties to sow  5. Shifting to shorter duration rice varieties  6. Changes in plot irrigation schedule |
|  | M4B111\_C2 | 4B1.1.1 Q.2 | In the last 12 months, have you received advice from authorities with regard to advices mentioned in M4B111A\_MA   1. Yes 2. No |
|  | M4B111\_C3 | 4B1.1.1 Q.3 | Have you applied this advice on at least one plot? |
|  | M4B111\_C41 | 4B1.1.1 Q.4 Dong Xuan Season | Have you applied this advice on Winter-Spring (Dong-Xuan) Season |
|  | M4B111\_C42 | 4B1.1.1 Q.4 He Thu Season | Have you applied this advice on Summer-Autumn (He-Thu) Season |
|  | M4B111\_C43 | 4B1.1.1 Q.4 Thu Dong Season | Have you applied this advice on Autumn-Winter (Thu Đông) Season |
|  | M4B111\_C44 | 4B1.1.1 Q.4 Mua Season | Have you applied this advice on Wet season (Mua) |
|  | M4B111\_C5 | 4B1.1.1 Q.5 | Following the advice of "Shifting from rice to another crop", which product did you produce instead of rice  1. Schrimp  2. Fruit crops  3. Lotus or buffalo nut crop  4. Growing fish in cages  5. Vegetable  6. Other |

**Ho\_Muc4B111B - Rice management practices**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Variables** | **Question code in SPIA's module** | **Description** |
|  | M4B111B\_MA | 4B1.1.1 Q.5b | List of NRM:  1. VietGAP  2. One Must Do, Five Reduction (1M5R)  3. Alternate Wetting and Drying (AWD)  4. Integrated Crop Management (ICM)  5. Three Reductions, Three gains (3R3G)  6. System of Rice Intensification (SRI)  7. Other |
|  | M4B111\_C5B | 4B1.1.1 Q.5b | Are you familiar with the NRM |
|  | M4B111\_C5C | 4B1.1.1 Q.5c | Have you ever applied the NRM |
|  | M4B111\_C5D | 4B1.1.1 Q.5d | Have you applied the NRM during the last Winter-Spring (Dong-Xuan) season |

**Ho\_TTC\_M4B11**

| **No.** | **Variables** | **Question code in SPIA's module** | **Description** |
| --- | --- | --- | --- |
|  | ~~TENCHUHO~~ |  | ~~Household head name~~ |
|  | M4B111\_C6 | M4B111 Q.6 | During the last Winter-Spring season, which method did you use for seedling  1. Hand seedling  2. Row seeder  3. Seed blower  4. Transplanting (manual/machine)  5. Other |
|  | M4B111\_C7 | M4B111 Q.7 | Between transplanting and flowering, how many times was the plot left dry |
|  | M4B111\_C8 | M4B111 Q.8 | How many days on average was the plot left dry before irrigation was applied |
|  | M4B111\_C9 | M4B111 Q.9 | Are you able to determine the timing of the irrigation on your plot?  1. Yes  2. No, determined by the farmer cooperative/commune  3. No, determined by a company (state-own or private) |
|  | M4B111\_C10 | M4B111 Q.10 | Did you use certified seeds |
|  | M4B111\_C11 | M4B111 Q.11 | How many times did you apply pesticide, fungicides or insecticides |
|  | M4B111\_C121 | M4B111 Q.12 Opt. 1 | Did you use manual labor for harvesting |
|  | M4B111\_C122 | M4B111 Q.12 Opt. 2 | Did you use a mini-combine harvester / 2WT for harvesting |
|  | M4B111\_C123 | M4B111 Q.12 Opt. 3 | Did you use a combine harvester for harvesting |
|  | M4B111\_C124 | M4B111 Q.12 Opt. 4 | Did you use a straw beller for harvesting |
|  | M4B111\_C125 | M4B111 Q.12 Opt. 5 | Other harvesting method used |
|  | M4B111\_C13 | M4B111 Q.13 | After harvest, what did you mostly do with rice straws?  1. Burn on the plot  2. Left on the plot for mulching  3. Incorporated to the soil plot  4. Removed partially from the plot  5. Removed completely from the plot  6. Other |
|  | M4B111\_C14 | M4B111 Q.14 | What did mostly you do with the straws removed from the plot?  1. Feed for livestock  2. Use for cooking  3. Used for mushroom cultivation  4. Use for compost  5. Sold  6. Other |
|  | M4B112\_C1 | M4B112 Q.1 | Is this household selected for rice crop sampling |
|  | M4B113\_C1 | M4B113 Q.1 | What is the ID code of the plot selected for crop sampling |
|  | M4B113\_C2 | M4B113 Q.2 | Plot description of the selected plot |
|  | M4B113\_C3 | M4B113 Q.3 | What is the cultivated area of the plot, in sq. meters |
|  | M4B113\_C4 | M4B113 Q.4 | How many varieties of rice were planted on this plot? |
|  | M4B113\_C5 | M4B113 Q.5 | What is the name of the main variety planted on this plot |
|  | M4B113\_C6 | M4B113 Q.6 | What type of rice is the main variety planted on this plot?  1. Traditional  2. Improved/Certified  3. Do not know |
|  | M4B113\_C7 | M4B113 Q.7 | Is the main variety used on this plot a certified seed |
|  | M4B113\_C8 | M4B113 Q.8 | What is the source of the main seeds planted on this plot?  1. Self-produced  2. Farmer Group/Seed Club  3. Seed company  4. Research Institutes/Universities  5. Extension services  6. Cooperative  7. Private stores/dealer  8. Other |
|  | M4B113\_C9 | M4B113 Q.9 | For how many seasons have you re-used the main variety planted on this plot |
|  | M4B113\_C101 | M4B113 Q.10 Opt.1 | Is this main variety Salt-tolerant |
|  | M4B113\_C102 | M4B113 Q.10 Opt.2 | Is this main variety Submergence-tolerant |
|  | M4B113\_C103 | M4B113 Q.10 Opt.3 | Is this main variety Drought-tolerant |
|  | M4B113\_C104 | M4B113 Q.10 Opt.4 | Is this main variety High-temperature tolerant |
|  | M4B113\_C105 | M4B113 Q.10 Opt.5 | Is this main variety Cold-tolerant |
|  | M4B113\_C106 | M4B113 Q.10 Opt.6 | Is this main variety Acid-sulphate tolerant |
|  | M4B113\_C111 | M4B113 Q.11 Opt.1 | Have you applied VietGAP on this plot |
|  | M4B113\_C112 | M4B113 Q.11 Opt.2 | Have you applied 1M5R on this plot |
|  | M4B113\_C113 | M4B113 Q.11 Opt.3 | Have you applied AWD on this plot |
|  | M4B113\_C114 | M4B113 Q.11 Opt.4 | Have you applied ICM on this plot |
|  | M4B113\_C115 | M4B113 Q.11 Opt.5 | Have you applied 3R3G on this plot |
|  | M4B113\_C116 | M4B113 Q.11 Opt.6 | Have you applied SRI on this plot |
|  | M4B113\_C117 | M4B113 Q.11 Opt.7 | Have you applied other Rice Management Practice on this plot |
|  | M4B113\_C117GHIRO | M4B113 Q.11 Opt.7Specify | Specify the other Rice Management Practice applied |
|  | M4B113\_C121 | M4B113 Q.12  Opt.1 | In this Dong-Xuan season, have you received advice from authorities regarding Shifting from rice to another crop |
|  | M4B113\_C122 | M4B113 Q.12  Opt.2 | In this Dong-Xuan season, have you received advice from authorities regarding Change in rice sowing/transplanting dates |
|  | M4B113\_C123 | M4B113 Q.12  Opt.3 | In this Dong-Xuan season, have you received advice from authorities regarding Rice varieties to sow |
|  | M4B113\_C124 | M4B113 Q.12  Opt.4 | In this Dong-Xuan season, have you received advice from authorities regarding Shifting to shorter duration rice varieties |
|  | M4B113\_C125 | M4B113 Q.12  Opt.5 | In this Dong-Xuan season, have you received advice from authorities regarding Changes in plot irrigation schedule |
|  | M4B113\_C131 | M4B113 Q.13  Opt.1 | Have you applied the advice of Shifting from rice to another crop |
|  | M4B113\_C132 | M4B113 Q.13  Opt.2 | Have you applied the advice of Change in rice sowing/transplanting dates |
|  | M4B113\_C133 | M4B113 Q.13  Opt.3 | Have you applied the advice of Rice varieties to sow |
|  | M4B113\_C134 | M4B113 Q.13  Opt.4 | Have you applied the advice of Shifting to shorter duration rice varieties |
|  | M4B113\_C135 | M4B113 Q.13  Opt.5 | Have you applied the advice of Changes in plot irrigation schedule |
|  | M4B113\_C14N | M4B113\_C14D | Date of crop sampling – Day |
|  | M4B113\_C14T | M4B113\_C14M | Date of crop sampling - Month |
|  | M4B113\_C16 | M4B113\_C16 | Crop sample barcode |
|  | KINHDO | M4B113\_C17 Longitude | GPS- Longitude |
|  | VIDO | M4B113\_C17 Latitude | GPS- Latitude |
|  | season |  | Recoded variable of the agricultural season at the time of data collection |

**Ho\_Muc4B112 - Plot roster**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Variables** | **Question code in SPIA's module** | **Description** |
|  | M4B112\_STT |  | Plot code |
|  | M4B112\_C2 | M4B112 Q.2 | Plot description (plot name) |
|  | M4B112\_C3 | M4B112 Q.3 | Growing stage of rice planted in the plot  1. Less than 20 days since sowing  2. More than 20 days since sowing |
|  | M4B112\_C4 | M4B112 Q.4 | Plot selection |