



Standing
Panel on
Impact
Assessment

SPIA Viet Nam Report: Global Ambitions, Sustainable Pathways

ANNEXES

Contents

Annex A. VHLSS Questionnaires (English versions)	3
Modules Integrated into VHLSS 2022	3
Modules Integrated into VHLSS 2023	12
Modules Integrated into VHLSS 2024	42
Annex B. VHLSS Questionnaires (Vietnamese versions)	55
Modules integrated into VHLSS 2022	55
Modules Integrated into VHLSS 2023	65
Modules Integrated into VHLSS 2024	96
Annex C. GIFT-Derived Strains Visual Aid and Fin-Clipping	110
Fin Clip Sampling Procedure.....	110
Visual Aid Distinguishing Tilapia (A) from Climbing Perches (B)	111
Annex D. Visual Aid used to measure the timing of 3R3G/1M5R agricultural practices	112
Annex E. Reference Libraries	113
Reference Library Used for Rice DNA Varietal Identification.....	113
Reference Library Used for Cassava DNA Varietal Identification.....	119
Reference Library Used for Tilapia Strains Identification.....	119
Annex F. List of Improved Varieties Released in Viet Nam.....	120
Rice Varieties Released in Viet Nam, 2003-2023	120
Cassava Improved Varieties Released in Viet Nam, 2003-2023	184
Sweetpotato Improved Varieties Released Viet Nam, 2003-2023.....	186
Potato Improved Varieties Released in Viet Nam, 2003-2023	188
Groundnut Improved Varieties Released in Viet Nam, 2003-2023	190
Annex G. Policy Contributions Plausibly Attributable to CGIAR Research (2003-2023).....	192
Method.....	192
Climate and GHG Mitigation Policies	192
Forestry and Agroforestry.....	194
Water and Environmental Management.....	199
Nutrition and Health.....	204
Livestock and Human Health.....	205
Rice Sector	210

Cassava Sector214
Coffee Sector215
Other.....215

Annex A. VHLSS Questionnaires (English versions)

Please note that the layout of the modules may have been adjusted to fit the Word format. Refer to the repository for the Excel version of these modules.

Modules Integrated into VHLSS 2022

4B1. Cultivation

4B1.1a. Have you harvested any products from planting activities for the last 12 months? (Including by-products and collected products from cultivation)?

1 - Yes

2 - No

4B1.1b. Was the damage caused by natural disasters, pest diseases, or environmental pollution...?

1 - Yes

2 - No

4B1.1. Rice

Note: The below roster is part of the VHLSS original design. It is used to direct rice-growing households to the newly integrated modules.

	2	3	3a			3b	4	5	
	Which types of rice have your household harvested in the last 12 months?	What is the cultivated area of [...] in the last 12 months?	When did you sow / transplant seeds for [...]? Use starting date ENUMERATOR: IF RICE WAS PLANTED SEVERAL TIMES IN A GIVEN SEASON, WRITE THE LAST SUCCESSFUL SOWING/PLANTING DATES			Is the date in the Lunar or Gregorian calendar? 1 - Lunar calendar 2 - Gregorian calendar	What is the output of [...] harvested in the last 12 months?	Value of product harvested in the last 12 months?	
	Mark X if YES	X	M2	DAY	MONTH	YEAR	CODE	KG	THOUSAND VND
	Year-round ordinary rice?								
	Winter-Spring ordinary rice?								

Summer-autumn ordinary rice?									
Tenth-month or autumn-winter rice?									
Ordinary rice planted in terraced fields?									
Year-round glutinous rice?									
Year-round specialty rice?									

4B1.1.1. Adaptive rice-based systems

1. Has the household harvested at least one plot of rice in the last 12 months?

1 - Yes (>>> Q2)

2 - No (>>> Next module)

2		3	4				5
In the last 12 months, have you received advice from authorities regarding the following: [ENUMERATOR: AUTHORITIES REFER TO DISTRICT AGRICULTURE OFFICE, DISTRICT PEOPLE'S COMMITTEE, COOPERATIVES, EXTENSION SERVICES, AND COMMUNE/VILLAGE LEADERS] 1 - Yes 2 - No		Have you applied this advice on at least one plot? 1 - Yes 2 - No	In which cropping season have you applied this advice? Winter - Spring (Dong - Xuan) Summer - Autumn (He - Thu) Autumn - Winter (Thu - Đông) Wet season (Mua)				Following this advice, which product did you plant instead of rice? 1 - Shrimp 2 - Fruit crops 3 - Lotus or buffalo nut crop 4 - Growing fish in cages 5 - Vegetable 6 - Other [ENUMERATOR: IF MORE THAN ONE SEASON, CHOOSE THE DONG-XUAN CROP SHIFT]
Not cultivating rice in a particular season.	IF 1 >>>	IF 1 >>>					
Shifting from rice to another crop	IF 1 >>>	IF 1 >>>	>>>	>>>	>>>	>>>	

Change in rice sowing/planting dates	IF 1 >>>	IF 1 >>>					
Rice varieties to sow	IF 1 >>>	IF 1 >>>					
Shifting to shorter-duration rice varieties	IF 1 >>>	IF 1 >>>					
Changes in plot irrigation schedule	IF 1 >>>	IF 1 >>>					

4B1.1.2. Rice management practices

	5b	5c	5d
	Are you familiar with [...]? 1 - Yes 2 - No (>> NEXT LINE) <p style="text-align: center;">IF ALL LINES == 2 (>> QUESTION 6)</p> ENUMERATOR: CITE EVERY RICE MANAGEMENT PRACTICE	Have you ever applied [...]? 1 - Yes 2 - No <p style="text-align: center;">IF ALL LINES == 2 (>> QUESTION 6)</p>	Have you applied [...] during the last Winter-Spring (Dong-Xuan) season? 1 - Yes 2 - No
1.	VietGAP [Tiêu chuẩn thực hành sản xuất nông nghiệp tốt của Việt Nam]	IF 1 >>	>>
2.	One Must Do, Five Reduction (1M5R) [Một Phải, Năm Giảm (1P5G)]	IF 1 >>	>>
3.	Alternate Wetting and Drying (AWD) [Ướt khô xen kẽ ; (2) Khô ngập luân phiên; (3) Nông Lộ Phơi]	IF 1 >>	>>
4.	Integrated Crop Management (ICM) [Quản lý tổng hợp dinh dưỡng và dịch hại cây trồng]	IF 1 >>	>>
5.	Three Reductions, Three gains (3R3G) [Ba Giảm Ba Tăng]	IF 1 >>	>>
6.	System of Rice Intensification (SRI) [1) Hệ thống thâm canh lúa cải tiến; (2) Hệ thống thâm canh lúa tổng hợp]	IF 1 >>	>>
7.	Other: (Specify.....)	IF 1 >>	>>

ENUMERATOR: ASK THE FOLLOWING QUESTIONS FOR THE LAST COMPLETED DONG-XUAN SEASON, 2021 OR 2022, DEPENDING ON THE TIME OF DATA COLLECTION

<p>6</p> <p>During the last Winter-Spring season, which method did you use for seedlings?</p> <p>ENUMERATOR: A ROW SEEDER/SEED DRU HAS SIX TO EIGHT DRUMS (16 MM IN DIAMETER), EACH WITH A PAIR OF ROWS OF HOLES (8-9 MM IN DIAMETER) ON EACH SIDE OF THE DRUM)</p> <p>1- Hand seedling 2- Row seeder 3- Seed blower 4- Transplanting (Manual/Machine) 5- Other</p>	<p>7</p> <p>Between transplanting and flowering, how many times was the plot left dry?</p> <p>ENUMERATOR: A PLOT IS CONSIDERED DRY WHEN THE SOIL IS CRACKED. A PLOT CAN BE DRY FOR MANY REASONS, I.E. DROUGHT, COOPERATIVE/FARMER'S DELAY IN PUMPING WATER, ETC</p>	<p>8</p> <p>How many days, on average, was the plot left dry before irrigation was applied?</p>	<p>9</p> <p>Are you able to determine the timing of the irrigation in your plot?</p> <p>1- Yes 2- No, determined by the farmer cooperative/commune 3- No, determined by a private company</p>
<p>CODE</p>	<p>TIMES (IF 0 >>>> Q9)</p>	<p>DAYS</p>	<p>CODE</p>

<p>10</p> <p>Did you use certified seeds?</p> <p>ENUMERATOR: ON AT LEAST ONE PLOT</p> <p>1- Yes</p>	<p>11</p> <p>How many times did you apply pesticides, fungicides, or insecticides?</p>	<p>12</p> <p>Which method did you use for harvesting?</p> <p>ENUMERATOR: MULTIPLE ANSWERS POSSIBLE</p> <p>1 - Manual labor 2 - Using a mini-combine harvester / 2WT 3 - Using a combine harvester</p>	<p>13</p> <p>After harvest, what did you mostly do with rice straws?</p> <p>1 - Burn on the plot (>> MODULE 4B1.1.2) 2 - Left on the plot for mulching (>> MODULE 4B1.1.2) 3 - Incorporated to the soil plot (>>PHẦN 4B1.1.2)</p>	<p>14</p> <p>What did you mostly do with the straws removed from the plot?</p> <p>1 - Feed for livestock 2 - Use for cooking</p>
--	---	--	--	---

2- No		4 - Using a straw baler 5 - Other	4 - Removed partially from the plot (>>Q14) 5 - Removed completely from the plot (>>Q14) 6 - Other (>> MODULE 4B1.1.2)	3 - Used for mushroom cultivation 4 - Use for compost 5 - Sold 6 - Other
CODE	TIMES	CODE	CODE	CODE

4B1.1.2. Plot roster

1. Is this household selected for rice crop sampling?

1 - Yes (>> Q2)

2 - No (>> MODULE 4B1.1.3)

ENUMERATOR: PLEASE GIVE ME THE LIST OF ALL RICE PLOTS CULTIVATED THIS SEASON

P L O T C O D E	2	3	4
	Plot Description	At which growth stage is the rice planted on [...]?	Plot selection
		1. Less than 20 days since sowing 2. More than 20 days since sowing	RANDOM SELECTION BY CAPI
		<u>IF 2 >>> Q4</u> <u>IF 1 >>> NEXT PLOT</u>	
1			
2			
3			
4			
5			
6			

4B1.1.3 Rice crop sampling

ENUMERATOR: CONTINUE WITH THE PLOT SELECTED FOR CROP SAMPLING IN MODULE 4B1.1.2

1	2	3	4	5
What is the ID code of the plot selected for crop sampling? [Note: Automatic filling]	Plot Description [ENUMERATOR: USE THIS NAME IN THE FOLLOWING QUESTIONS] [Note: Automatic filling]	What is the cultivated area of the plot, in sq. meters?	How many varieties of rice were planted on this plot?	What is the name of the main variety planted in this plot? ENUMERATOR: CONTINUE WITH THE MAIN VARIETY ONLY
ID	NAME OF PLOT	M2	NUMBER	NAME

6	7	8	9
What type of rice is the main variety planted in this plot? 1 - Traditional 2 - Improved/certified 99 - Don't know	Is the main variety used on this plot a certified seed? 1 - Yes 2 - No ENUMERATOR: CERTIFIED SEEDS ARE PRODUCED BY COMPANIES AND COME IN A LABELLED BAG WITH THE VARIETY NAME	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/dealers 8 - Other If 1 >>> Q9 If NOT 1 >>> NEXT MODULE	For how many seasons have you re-used the main variety planted on this plot? ENUMERATOR: IF SEEDS ARE NEWLY PURCHASED, ENTER 0
CODE	CODE	CODE	NUMBER

O R D E R	10. Is this main variety:	
	ENUMERATOR: CITE EVERY STRAIT. TICK THE BOX IF YES	MARK X IF THE ANSWER IS YES <input checked="" type="checkbox"/>
1	Salt-tolerant	
2	Submergence-tolerant	
3	Drought-tolerant	
4	High-temperature tolerant	
5	Cold-tolerant	
6	Acid-sulfate tolerant	

	11. Have you applied [...] on this plot?	
	ENUMERATOR: CITE EVERY METHOD. TICK THE BOX IF YES	MARK X IF THE ANSWER IS YES
1	VietGAP [Tiêu chuẩn thực hành sản xuất nông nghiệp tốt của Việt Nam]	
2	One Must Do, Five Reduction (1M5R) [Một Phải, Năm Giảm (1P5G)]	
3	Alternate Wetting and Drying (AWD) [Ướt khô xen kẽ; (2) Khô ngập luân phiên; (3) Nông Lộ Phơi]	
4	Integrated Crop Management (ICM) [Quản lý tổng hợp dinh dưỡng và dịch hại cây trồng]	
5	Three Reductions, Three gains (3R3G) [Ba Giảm Ba Tăng]	
6	System of Rice Intensification (SRI) [1) Hệ thống thâm canh lúa cải tiến; (2) Hệ thống thâm canh lúa tổng hợp]	
7	Other: (SPECIFY.....)	

ORDE R	12.		13
	In this Dong-Xuan season, have you received advice from authorities regarding: ENUMERATOR: AUTHORITIES REFER TO DISTRICT AGRICULTURE OFFICE, DISTRICT PEOPLE'S COMMITTEE, COOPERATIVES, EXTENSION SERVICES, COMMUNE/VILLAGE LEADERS 1 - Yes 2 - No (>> NEXT LINE)		Have you applied this advice? 1 - Yes 2 - No
			CODE
1	Shifting from rice to another crop	IF 1 >>>	
2	Change in rice sowing/planting dates	IF 1 >>>	
3	Rice varieties to sow	IF 1 >>>	
4	Shifting to shorter-duration rice varieties	IF 1 >>>	
5	Changes in plot irrigation schedule	IF 1 >>>	

14		15	16	17	
DATE OF CROP SAMPLING		TAKE A PICTURE OF THE LOCATION OF THE SAMPLE TAKEN ON THE PLOT	CROP SAMPLE BARCODE [Enumerator: Scan the tube barcode]	GPS Coordinates Corner of the plot [Enumerator: Record the GPS coordinates]	
DAY	MONTH	PICTURE	BARCODE	LONGITUDE	LATITUDE

4B. Agricultural, forestry and aquacultural production activities

4B1. Cultivation

4B1.1a. Have you harvested any products from planting activities for the last 12 months? (Including by-products and collected products from cultivation)?

1 - Yes

2 - No

4B1.1b. Was the damage caused by natural disasters, pest diseases, or environmental pollution...?

1 - Yes

2 - No

4B1.1. Rice

Note: The below roster is part of the VHLSS original design. It is used to direct rice-growing households to the newly integrated modules.

	2		3	3a			3b	4	5
	Which types of rice have your household harvested in the last 12 months?		What is the cultivated area of [...] in the last 12 months?	When did you sow / transplant seeds for [...]?			Is the date in the Lunar or Gregorian calendar?	What is the output of [...] harvested in the last 12 months?	Value of product harvested in the last 12 months?
	Mark X if YES	X	M2	DA Y	MONT H	YEA R	CODE	KG	THOUSAND VND
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 fields?								
6	Year-round glutinous rice?								

7	Year-round specialty rice?								
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4B1.1.A. Rice-based innovations

4B1.1.A.1. Adaptive rice-based systems

2. Has the household harvested at least one plot of rice in the last 12 months?

1 - Yes (>>> Q2)

2 - No (>>> Next module)

	2		3	4				5
	In the last 12 months, have you received advice from authorities regarding the following: [ENUMERATOR: AUTHORITIES REFER TO DISTRICT AGRICULTURE OFFICE, DISTRICT PEOPLE'S COMMITTEE, COOPERATIVES, EXTENSION SERVICES, AND COMMUNE/VILLAGE LEADERS] 1 - Yes 2 - No		Have you applied this advice on at least one plot? 1 - Yes 2 - No	In which cropping season have you applied this advice? Winte r- Spring (Dong - Xuan) Summe r - Autum n (He- Thu) Autum n - Winter (Thu Đông) Wet seaso n (Mua)				Following this advice, which product did you plant instead of rice? 1 - Shrimp 2 - Fruit crops 3 - Lotus or buffalo nut crop 4 - Growing fish in cages 5 - Vegetable 6 - Other [ENUMERATOR: IF MORE THAN ONE SEASON, CHOOSE THE DONG-XUAN CROP SHIFT]
1	Not cultivating rice in a particular season.	IF 1 >>>	IF 1 >>>					
2	Shifting from rice to another crop	IF 1 >>>	IF 1 >>>	>>>	>>>	>>>	>>>	
3	Change in rice sowing/planting dates	IF 1 >>>	IF 1 >>>					

4	Rice varieties to sow	IF 1 >>>	IF 1 >>>					
5	Shifting to shorter-duration rice varieties	IF 1 >>>	IF 1 >>>					
6	Changes in plot irrigation schedule	IF 1 >>>	IF 1 >>>					

MODULES A2 TO A6 BELOW ARE ASKED FOR THE HARVESTED WINTER-SPRING SEASON IN THE PAST 12 MONTHS. IF FARMERS DID NOT CULTIVATE IN THE WINTER-SPRING SEASON, THESE QUESTIONS ARE APPLIED TO THE LAST HARVESTED SEASON

4B1.1.A.2. Seeds

1	2		3
<p>During the last Winter-Spring season, which method did you use for seeding in your largest plot?</p> <p>1 - Hand seeding 2 - Row seeder/ drum seeder 3 - Seed blower 4 - Transplanting by hand using hard plating 5 - Transplanting by hand using soft plating 6 - Transplanting by machine 7 - Other 99 - Don't know</p>	<p>During the last Winter-Spring season, which seed rate did you use on your largest plot?</p> <p>1 - In m2 2 - Sào Bắc Bộ (360m2) 3 - Sào Trung Bộ (500m2) 4 - Sào Nam Bộ or Công Nhà nước (1000m2) 5 - Công Tầm Cắt or Công Lớn (~ 1300m2) 99 - Don't know >> Q5</p>		<p>How long have you been using this seed rate for the last winter-spring season?</p>
CODE	NUMBER	CODE	NUMBER (YEARS)

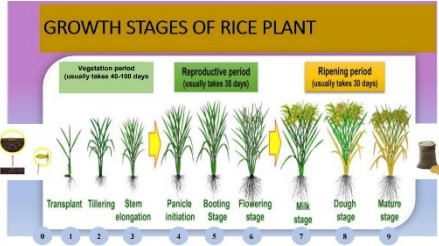
4	5	6
<p>What was your seed rate before this time?</p> <p>1 - In m2 2 - Sào Bắc Bộ (360m2) 3 - Sào Trung Bộ (500m2) 4 - Sào Nam Bộ or Công Nhà nước (1000m2) 5 - Công Tầm Cắt or Công Lớn (~ 1300m2) 99 - Don't know</p>	<p>During the last Winter-Spring season, did you use certified seeds?</p> <p>[ENUMERATOR: READ ALL OPTIONS, AND SELECT ONE]</p> <p>1 - Only certified seeds 2 - Combination of certified seeds and your own seeds</p>	<p>What was the name of the main rice variety that you used last Winter-Spring season?</p>

		3 - Only self-produced seeds or seeds from other farmers 99 - Don't know	
NUMBER	CODE	CODE	TEXT

4B1.1.A.3. Pesticides

1	2a	2b
In the last WS season, how many times did you apply plant protection drugs on your main plot, including herbicides, molluscicides, insecticides, fungicides, and rodenticides?	Of these, how many times did you apply insecticides and fungicides?	If 0 application, do you normally experience bugs, diseases, or fungus on your main plot? 1 – Yes 2 – No
NUMBER OF TIMES	NUMBER OF TIMES	CODE

ENUMERATOR: LIST ALL THE APPLICATIONS FROM SOWING TO HARVESTING




ID	3	4	5		6
	For application [ID], for which object(s) are you using this plant protection drug? LIST OF OBJECTS [ENUMERATOR: CAN CHOOSE MULTIPLE CHOICES]	What was the purpose of this application [ID]? 1 - Prevention 2 - Treatment 3 - Nutrient 99 - Don't know	At which rice stage did you apply this chemical? [ENUMERATOR: USE VISUAL AID AND LET THE FARMER INDICATE TO YOU THE RICE GROWTH STAGE]		How many drugs did you use in application [ID]?
			0 – Stage 0 1 – Between 0 and 1 2 – Stage 2 3 – Between 1 and 2 4 – Stage 2 5 – Between 2 and 3 6 – Stage 3 7 – Between 3 and 4 8 – Stage 4	10 – Stage 5 11 – Between 5 and 6 12 – Stage 6 13 – Between 6 and 7 14 – Stage 7 15 – Between 7 and 8 16 – Stage 8 17 – Between 8 and 9 18 – Stage 9	
			 <p>The diagram illustrates the growth stages of a rice plant, numbered 0 to 9. It is divided into three main periods: Vegetation period (stages 0-3), Reproductive period (stages 4-7), and Ripening period (stages 8-9). The stages are: 0 - Transplant, 1 - Tillering, 2 - Stem elongation, 3 - Panicle initiation, 4 - Booting stage, 5 - Flowering stage, 6 - Milk stage, 7 - Dough stage, 8 - Mature stage, and 9 - Harvesting. The diagram shows the physical appearance of the rice plants at each stage, from a small seedling to a fully mature, golden-brown panicle.</p>		




			9 – Between 4 and 5		
	CODE	CODE	CODE		NUMBER
1					
2					
3					
...					



LIST OF OBJECTS TO BE FILLED IN A3.Q3



Note: The CAPI design allow for automatic filling when enumerator type in the disease/pest name in Vietnamese. Only relevant options are displayed, along with the visual. The visual is used to request the interviewee' confirmation about the disease/pest he intended to treat with this pesticide application.




ID	Name in Vietnamese	Visual	Name in English
1	Sâu cắn gié; Sâu keo; Sâu cắn chến; Sâu đàn.		Paddy armyworm, Rice ear-cutting caterpillar, Paddy swarming caterpillar
2	Sâu phao; Sâu phao bướm trắng; Sâu phao đục bẹ.		Rice caseworm; Leaf-sheath borer



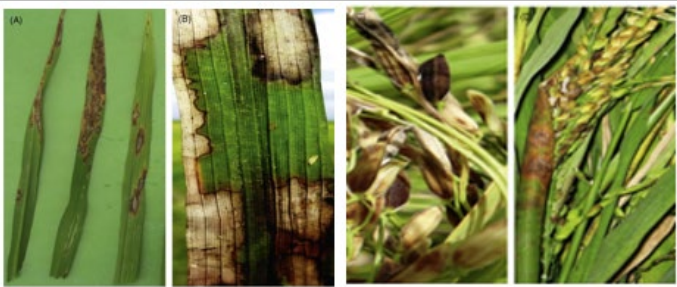
3	Sâu sừng xanh		Rice horn caterpillar, Rice butterfly
4	Sâu cuốn lá (nhỏ)		Rice leafroller, Rice leaf folder
5	Sâu gai (lúa); Bọ gai;		Rice hispa


6	Châu chấu lúa; Cào cào xanh;		Rice grasshoppers
7	Sâu đục thân		Stem borer-related
8	Rầy nâu; Muội nâu;		Brown planthopper

9	Rầy xanh;		Rice green leafhopper
10	Rầy lưng trắng;		White-backed planthopper
11	Muỗi hành; Sâu năn; Muỗi năn; Lúa năn;		(Asian) Rice (stem) gall midge
12	Rầy phấn trắng; Rầy cánh trắng, Bọ phấn trắng; Rầy phấn.		Rice whitefly
13	Ruồi đục lá lúa; Giòi đục lá; Ruồi/ giòi đục nõn/ ngọn.		Rice leaf miner; Rice whorl maggot

14	Bọ xít		Rice seed bug-related
15	Bọ trĩ, bù lạch, mò lửa, mò;		Rice thrips
16	Nhện gié; Bệnh cạo gió; Bệnh nấm bẹ;		Panicle rice mite
17	Cháy bìa lá lúa; Cháy lá; Bạc lá lúa;		Rice leaf blight; Bacterial leaf blight (BLB)

18	Đốm sọc lá lúa; Đốm sọc vi khuẩn hại lúa; Bệnh sọc trong;		Bacterial leaf streak (of rice); Bacterial grain rot
19	Lem lép hạt, Lép vàng; Thối hạt;		Bacterial panicle blight
20	Đạo ôn;		Rice blast; rice blast fungus On leaf: Leaf rice blast On rachis: Rachis rice blast

21	Đốm nâu; Tiêm lửa;		Brown spot disease; Rice brown leaf spot
22	Vàng lá chín sớm; Vàng lá;		Red stripe disease (yellow leaf disease)
23	Đốm vằn, khô vằn		Rice sheath blight
24	Thối bẹ (lúa);		Stem rot; Rice sheath rot

25	Bệnh lúa von; Bệnh bakanae; Bệnh thối gốc; Bệnh vuron lóng; Bệnh mạ đục;		<i>Bakanae disease of rice</i>
26	Bệnh lan truyền bởi rầy/ rầy nâu		Plant hoppers-related virus
27	Bệnh tuyến trùng hại rễ lúa; Bệnh bươu rễ lúa		e


4B1.1.A.4. Fertilizer

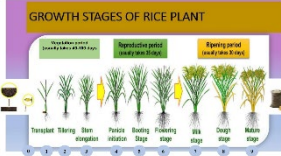
1. In the last WS season, how many times did you apply chemical fertilizer on your plot NUMBER OF TIMES
ENUMERATOR: ONLY CONSIDER CHEMICALS. PUT EACH APPLICATION IN ORDER, FROM LAND PREPARATION TO HARVEST

	2	3	4	5
I D	During the last Winter-Spring season, what type of fertilizers did you apply? 1 – Nitrogen 2 – Phosphate >>Q4 3 – Kali >>Q4 4 - NPK	Do you know the chemical formula of this fertilizer? e.g, NPK 20-20-15, NPK 8-10-3, Urea (46-0-	How many kg did you apply per unit of land? 1 - In m2 2 – Sào Bắc Bộ (360m2) 3 – Sào Trung Bộ (500m2)	At which rice stage did you apply this fertilizer? [ENUMERATOR: USE VISUAL AID AND LET THE FARMER INDICATE TO YOU THE RICE GROWTH STAGE] 0 – Stage 0 1 – Between 0 and 1 2 – Stage 2 10 – Stage 5 11 – Between 5 and 6 12 – Stage 6

	5 – DAP >>Q4 6 – Other >>Q4 (Specify)	0), Armoni (21-0-0)			4 – Sào Nam Bộ or Công Nhà nước (1000m2) 5 – Công Tầm Cắt or Công Lớn (~ 1300m2) 99 - Don't know	3 – Between 1 and 2 4 – Stage 2 5 – Between 2 and 3 6 – Stage 3 7 – Between 3 and 4 8 – Stage 4 9 – Between 4 and 5	13 – Between 6 and 7 14 – Stage 7 15 – Between 7 and 8 16 – Stage 8 17 – Between 8 and 9 18 – Stage 9	<p>The diagram illustrates the growth stages of a rice plant, divided into three main periods: <ul style="list-style-type: none"> Vegetation period (usually takes 45-100 days): Includes Transplant, Tillering, and Stem elongation. Reproductive period (usually takes 35 days): Includes Panicle initiation, Booting stage, and Flowering stage. Ripening period (usually takes 30 days): Includes Milk stage, Dough stage, and Mature stage. </p>
	CODE	N	P	K	NUMBER	CODE	CODE	
1								
2								
...								

4B1.1.A.5. Water

1	2	3	4
<p>During the last Winter-Spring season, which water source did you use to irrigate your fields?</p> <p>1 - Cooperative, irrigation service center 2 - Agent Level II 3 - Only own pump 4 - Own pump and others 5 - Other (Specify)</p>	<p>Has your largest plot been leveled with a laser leveling machine?</p> <p>1 - Yes 2- No 99 - Don't know</p>	<p>Are you using a water pipe/tube to measure the water level?</p> <p>1 - Yes 2- No 99 - Don't know</p> 	<p>In the last Winter-Spring season, how many times did your largest plot dry?</p> <p>[ENUMERATOR: DRY PLOT MEANS NO WATER ON THE SURFACE OF THE LAND]</p>
CODE	CODE	CODE	NUMBER

ID	5	6	7	8		
Dry down ID	<p>For dry event [Drydown ID], at what stage/between stages were the rice plants?</p> <p>[ENUMERATOR: USE VISUAL AID AND LET THE FARMER INDICATE TO YOU THE RICE GROWTH STAGE]</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> 0 – Stage 0 1 – Between 0 and 1 2 – Stage 2 3 – Between 1 and 2 4 – Stage 2 5 – Between 2 and 3 6 – Stage 3 7 – Between 3 and 4 8 – Stage 4 9 – Between 4 and 5 </td> <td style="vertical-align: top; width: 50%;"> 10 – Stage 5 11 – Between 5 and 6 12 – Stage 6 13 – Between 6 and 7 14 – Stage 7 15 – Between 7 and 8 16 – Stage 8 17 – Between 8 and 9 18 – Stage 9 </td> </tr> </table> <div style="text-align: center; margin-top: 10px;">  <p>The diagram illustrates the growth stages of a rice plant, categorized into three periods: 'Vegetative period (seedling to panicle initiation)', 'Reproductive period (panicle initiation to anthesis)', and 'Harvesting period (anthesis to maturity)'. The stages shown are: Transient tillering, Stem elongation, Panicle initiation, Booting stage, Flowering stage, Anthesis stage, and Maturity stage. Each stage is accompanied by a small illustration of the rice plant's appearance at that point.</p> </div>	0 – Stage 0 1 – Between 0 and 1 2 – Stage 2 3 – Between 1 and 2 4 – Stage 2 5 – Between 2 and 3 6 – Stage 3 7 – Between 3 and 4 8 – Stage 4 9 – Between 4 and 5	10 – Stage 5 11 – Between 5 and 6 12 – Stage 6 13 – Between 6 and 7 14 – Stage 7 15 – Between 7 and 8 16 – Stage 8 17 – Between 8 and 9 18 – Stage 9	<p>For dry event [Drydown ID], how many days was the plot dry?</p>	<p>On dry event [Drydown ID], what reason below caused the soil to dry?</p> <p>[ENUMERATOR TO READ ALL OPTIONS. SELECT ONLY ONE ANSWER]</p> <ol style="list-style-type: none"> 1 - I actively drained the water out 2 - Cooperative/irrigation company drained out the water 3 - Cooperative/irrigation company stopped pumping the water 4 - Cooperative pumped but I did not receive enough water 5 - Mound land 6 - Sunny, hot weather 7 - Other 99 - Don't know 	<p>On dry event [Drydown ID], how much did your feet sink when you stepped on the soil (in cm) at the driest time of your plot?</p> <p>[ENUMERATOR: 99 IF DO NOT KNOW]</p>
0 – Stage 0 1 – Between 0 and 1 2 – Stage 2 3 – Between 1 and 2 4 – Stage 2 5 – Between 2 and 3 6 – Stage 3 7 – Between 3 and 4 8 – Stage 4 9 – Between 4 and 5	10 – Stage 5 11 – Between 5 and 6 12 – Stage 6 13 – Between 6 and 7 14 – Stage 7 15 – Between 7 and 8 16 – Stage 8 17 – Between 8 and 9 18 – Stage 9					
	CODE	DAYS	CODE	NUMBER (CM)		
	1					
	2					
	...					

4B1.1.A.6. Post-harvest

1	2	3	4
<p>When did you start harvesting rice?</p> <p>1 – When 70-80% of the grains per panicle were straw-yellow colored. 2 – When 80-90% of the grains per panicle were straw-yellow colored 3 – When 90-100% of the grains per panicle were straw-yellow colored</p>	<p>Which method did you mostly use for harvesting?</p> <p>1 - Using a combine harvester 2 - Using a straw baler 3 - Manual labor >> Q4 4 - Other methods (Specify) >> Q4</p>	<p>For how long have you been using this harvesting method?</p>	<p>Which method did you use to dry your rice?</p> <p>1 - Field drying >> Q6 2 - Sun drying on the road or home ground >> Q6 3 - Sun drying using a mat or pavement >> Q6 4 - Heated air drying (batch dryer) 5 - Low-temperature drying (In-store dryer) 6 - Solar drying or Solar bubble dryer 7 - I dry by machine, but I don't know the technology 8 - No drying sold fresh rice >> Q6 9 - Other (Specify) >> Q6</p>
CODE	CODE	YEARS	CODE

5	6	7
<p>How long have you been using this drying method?</p>	<p>How did you store your rice?</p> <p>1 - No storage, sold fresh rice 2 - Storage shed in bags; 3 - In storage shed loose (bulk); 4 - Hermetic storage (Cocoon or Super Bag) 5 – Other (Specify)</p>	<p>How did you check the moisture content of your rice?</p> <p>1 - I don't check the moisture content 2 - I checked by hand 3 - I used a machine 4 - The buyer checks the moisture content</p>
YEARS	CODE	CODE

4B1.1.A.7. NRM methods

	1	
	<p>Have you applied [...] during the last Winter-Spring (Dong-Xuan) season?</p> <p>[ENUMERATOR: CITE EVERY RICE MANAGEMENT PRACTICE]</p> <p>1 – Yes 2 – No 99 – Don't know</p>	
		CODE
1	One Must Do, Five Reduction (1M5R) [Một Phải, Năm Giảm (1P5G)]	
2	Alternate Wetting and Drying (AWD) [(1) Ướt khô xen kẽ; (2) Khô ngập luân phiên; (3) Nông Lộ Phơi; (4) Tưới lộ ruộng]	
3	Three Reductions, Three gains (3R3G) [Ba Giảm Ba Tăng]	
4	System of Rice Intensification (SRI) [1) Hệ thống thâm canh lúa cải tiến; (2) Hệ thống thâm canh lúa tổng hợp]	

4B1.2. Other starchy, vegetable, and annual plants

Note: The below roster is part of the VHLSS original design. It is used to direct cassava-growing and potato-growing households to the newly integrated modules.

	2	3	4	5	6	7	8	
	Which of the following products have you harvested in the last 12 months? ENUMERATOR: ASK QUESTION 2 FOR ALL KINDS OF PLANTS BEFORE STARTING QUESTION 3	What was the area in which you grew [...]?	What was the output of [...] that you harvested in the last 12 months?	What was the amount of [...] that you did sell or barter in the total harvested output in the last 12 months?	How much did you earn from the sale/barter of [...] in the last 12 months?	Value of the product harvested in the last 12 months?	Do you currently have [...] planted on at least one plot? 1- Yes 2- No	
	Mark X if YES	X	M2	KG	KG	THOUSAN D VND	THOUSAN D VND	CODE
1	Maize (corn)							
2	Sweet potato							
3	Cassava/manioc							>>> Module 4B1.2. A
4	Other staple food crops							
5	Potato							>>> Module 4B1.2. B
6	Morning glory vegetable							
7	Kohlrabi							
8	Cabbage, cauliflower							
9	Cruciferous vegetables							
10	Edible beans							
11	Tomato							
12	Seasoning herb							
13	Other edible vegetables, fruits, and roots							

14	Other annual crops (green, black, and red bean, flowers, decorative plants, plants for animal feed and manure, etc.)							
----	--	--	--	--	--	--	--	--

4B1.2. A. Cassava

4B1.2. A.1. Cassava Use and Marketing

c	1	2	3	4	5	6
Types of cassava products sold	To whom did you <u>mainly</u> sell this [Cassava product]? 1 - Local traders at the cassava plot 2 - Local traders at the market (i.e., weighing points) 3 - Starch/Ethanol processing factory 4 - Directly to consumers >> Q5 5 - Other (Specify)	Do you know the name of the factory that received your [Cassava product]? [ENUMERATOR: 99 IF DO NOT KNOW]	Do you know the commune in which the factory that received your [Cassava product] is located? [ENUMERATOR: SEARCH AND SELECT COMMUNE NAME AND CODE, 99 IF DO NOT KNOW]	For how many years have you been selling to this buyer?	In total, how much did you pay for processing this [Cassava product] (in thousand VND)?	In total, how much did you receive from selling this [Cassava product]?
	CODE	CODE	CODE	YEARS	THOUSAND VND	THOUSAND VND
a. Fresh root						
b. Flour						
c. Dried chips						
d. Do not sell						

4B1.2.A.2. Cassava plot roster

1. Is this household selected for cassava crop sampling?

- 1 Yes (>>> Q2)
- 2 No (>>>Q1a)

1a. Why is this household not selected for crop sampling?

- 1. This EA has collected samples from 5 households already.
- 2. Cassava was harvested already and not planted for the new season.
- 3. Other (specify).....

NUMERATOR: PLEASE GIVE ME THE LIST OF ALL CASSAVA PLOTS CULTIVATED THIS SEASON

PLOT CODE	2 Plot Name	3 What is the cultivated area of the plot, in sq. meters?	4 Was cassava in this plot planted more than 1 month? 1 - Yes (>>>Q5) 2 - No (Next plot)	5 <i>[Note: Automatic filling]</i> RANDOM SELECTION REPORTS THE PLOT ID IN THE NEXT SECTION
	NAME	AREA	CODE	NUMBER
1				
2				
...				

4B1.2.A.3. Cassava crop sampling

ENUMERATOR: CONTINUE WITH THE PLOT SELECTED FOR CROP SAMPLING

1	2	3	4	5	6	7	8
Household ID <i>[Note: Automatic filling]</i>	What is the ID code of the plot selected for crop sampling? <i>[Note: Automatic filling]</i>	How many varieties of cassava were planted on [Plot name]?	What is the name of the main variety planted on [Plot name]? <u>[Enumerator: continue with the main variety only]</u>	What type of cassava is the main variety planted on [Plot name]? 1 - Traditional 2 - Improved 99 - Don't know	What is the source of the main seeds planted on [Plot name]? 1 - Research Institutes/ Universities 2 - Agricultural Extension services 3 - Processing factories/traders 4 - Farmer Group/Seed Club/Cooperatives 5 - Private stores/dealers 6 - Obtained from a relative/friend 7 - Other	For how many years have you been reusing the planting material for this variety? [ENUMERATOR: If tubers are newly purchased, enter 0]	Is [Plot name] irrigated? 1 - Yes 2 - No
ID	ID	NUMBER	NAME	CODE	CODE	NUMBER	CODE

ORDER	9. Is this main variety:	
		Mark X if the answer is Yes
1	High-yielding (roots)	
2	Resistant to cassava mosaic disease (CMD)	

10		11
DATE OF CROP SAMPLING		CROP SAMPLE BARCODE [Enumerator: Scan the tube barcode]
DAY	MONTH	BARCODE

3	High starch content	
5	Early maturity	
6	Resistant to drought	

4B1.2. B. Potato

1	2	3
What is the name of the main variety planted? [ENUMERATOR: CONTINUE WITH THE MAIN VARIETY ONLY]	What is the source of the main variety planted? 1 - Research Institutes/ Universities 2 - Agricultural Extension services 3 - Processing factories/traders 4 - Farmer Group/Seed Club/Cooperatives 5 - Private stores/dealers 6 - Obtained from a relative/friend 7 - Other (Specify)	For how many years have you been reusing the planting material for this variety?? [ENUMERATOR: IF TUBERS ARE NEWLY PURCHASED, ENTER 0]
NAME	CODE	NUMBER

4B1.3. Annual and perennial industrial crops

Note: The below roster is part of the VHLSS original design. It is used to direct coffee-growing to the newly integrated modules.

ID	2	3	4	
	Which of the following products has your household harvested in the last 12 months? [ENUMERATOR: Ask question 2 for all kinds of plants before starting question 3]	What was the output of [...] your household harvested in the last 12 months?	Value of the product harvested in the last 12 months?	
	Mark X if YES	X	KG	'000 VND
2	Soya bean/soybean			
2	Peanut/groundnut			
2	Sesame			
2	Sugarcane			
2	Tobacco, rustic tobacco			
2	Cotton			
2	Jute, ramie			
2	Sedge			
3	Other industrial annual plants			
3	Tea			
3	Coffee			>>>> Module 4B13A
3	Rubber			
3	Pepper			
3	Coconut			
3	Mulberry			
3	Cashew			
3	Other industrial perennials			

4B1.3.A. Coffee Irrigation

ENUMERATOR: We would like to know about your irrigation practices in the last dry season

1	2	3	4
In the last dry season, which irrigation method did you use to irrigate your coffee? 1 - Root Irrigation 2 - Sprinkler Irrigation 3 - Sprinkler Irrigation at Root 4 - Drip Irrigation 5 - Other 99 - Don't know	In the last dry season, how many rounds of irrigation did you use? [ENUMERATOR: 99 IF DO NOT KNOW]	In each irrigation round, how many liters did you use per plant? [ENUMERATOR: 999 IF DO NOT KNOW]	How do you know that the water volume allocated to each plant is [Q3 answer] liters? 1 - I use a flow meter in the water pipeline 2 - I use a sink dug around coffee roots 3 - I know the time it takes to reach this amount 4 - Do not know with precision 5 - Other
CODE	NUMERIC	LITERS	CODE

4B5. Aquaculture/Fishery

1a. For the past 12 months, has anyone in your household bred and reared fish, shrimps, and other aquatic products or caught aquatic products from lakes, ponds, rivers, streams, and sea; or had income from aquaculture service activities?

- 1 - Yes (>>> Q2)
- 2 - No (Next module)

1b. Was the damage to production caused by natural disasters and epidemics?

- 1 - Yes (>>> Q4B5T2)
- 2 - No (Module 4C)

Note: The below roster is part of the VHLSS original design, and was modified to additionally include tilapia production (1.1b). It is used to select tilapia-growing households to the newly integrated modules.

0	2	3	5
---	---	---	---

R D E R	Which of the following products has your household gotten revenues from?	Total output in the past 12 months?	TOTAL VALUE OF PRODUCTS GAINED for the last 12 months?
	Mark X if YES	X	KG
1	Aquaculture production		IN THOUSAND VND
1.1	Fish		
	<i>If Fish was produced, ask below:</i>		
1.1 b	Fish (tilapia)		
1.2	Shrimp		
1.3	Fish and shrimp seeds		
1.4	Other aquatic products (specify_____)		
2	Catching		
2.1	Fish		
2.2	Shrimp		
2.3	Other aquatic products (specify_____)		

4B5T2. What is the total amount of money your household has been compensated/assisted for damages to aquaculture/fishery caught for the last 12 months? (Excluding compensation for live loss, fixed assets such as boats/vessels....)
THOUSAND VND

4B5T. Sum of question 5 + 4B5T2 (Revenues from fishery)

4B5.1.A. Tilapia

1	2	3	4	5
In what year did you start producing tilapia for the first time?	Has your household been involved in fish farming every year since? 1- Yes >> Q4 2- No	How many years has your household NOT been involved in fish farming since then?	Did you purchase tilapia fingerlings in the last 12 months? 1- Yes 2- No	How many pond facilities did your household stock in the last 12 months?
YEAR (4 DIGITS)	CODE	NUMBER	CODE	NUMBER

[ENUMERATOR: IF MORE THAN ONE POND, START WITH THE LARGEST]

POND FACILITIES AND EXPERIENCE

6	7	8	9	10	11
Pond Facility Type 1 – Pond 2 – Cage 3 – Channel/Field 4 – Other	What is the size of the facility?	What is the average water depth for this facility (in meters)?	What is the source of pond water? 1 - Surface (river, lake, creek, stream) 2 - Groundwater (tube well, well, ...) 3 - Irrigation canal 4 - Dam 5 - Other (specify)	Which species do you currently stock in the facility? 1 - No fish species currently stocked 2 - Tilapia and other species 3 - Tilapia only 4 - Other species only	Do you practice integrated agriculture/aquaculture, such as tilapia-rice, on this pond? [ENUMERATOR: Integrated Agriculture-Aquaculture is the simultaneous or sequential culture of fish and rice] 1 - Yes 2 - No
CODE	M2	NUMBER	CODE	CODE	CODE



ORIGIN



12	13	14	15	16	17
What month and year did you purchase fingerlings?	What was the source of the fingerlings? [ENUMERATOR: MULTIPLE ANSWERS POSSIBLE] 1 - Your own farm >> Q18 2 - Neighbor or relative 3 - Farmers' Group 4 - Government hatchery 5 - Private hatchery 6 - Local dealer (commission agent) 7 - NGO 8 - Other (specify)	Do you know the name of the hatchery that sold these fingerlings? [ENUMERATOR: NAME OF THE HATCHERY, 99 IF DO NOT KNOW]	Do you know the commune in which this hatchery is located? [ENUMERATOR: SEARCH AND SELECT COMMUNE NAME AND CODE, 99 IF DO NOT KNOW]	Approximately how far is the distance between your household and the hatchery (in Km) [ENUMERATOR: 99 IF DO NOT KNOW]	For how many years have you purchased tilapia fingerlings from this provider?
MONTH/ YEAR	CODE	TEXT	CODE	NUMBER	YEAR



STRAIN						OUTPUT		
18	19	20	21	22	23a	23	24	25
What is the name of the tilapia strain that you purchased?	How many fingerlings (fish) were stocked?	How many fingerlings were monosex male tilapia?	How many cm was the average length per fingerling at stocking?	What was the total price paid for these fingerlings?	Have you completely harvested the fish? 1- Yes (>>>Q23) 2- Have been gradually harvesting (Q24) 3- Not harvested yet (Next module)	When did you completely harvest the fish?	In what form was the tilapia sold? 1 - Fresh 2 - Dried 3 - Processed 4 - Other (Specify)	To whom did you mainly sell to? 1 - Traders 2 - Rural consumers 3 - Urban consumers 4 - Processing factory 5 - Other (Specify)
TEXT	NUMBER	CODE	CM	VND		MONTH/ YEAR	CODE	CODE

Modules Integrated into VHLSS 2024

4.1. MECHANIZATION

ID	<p>1. In the last 12 months, did any farmer in your commune use this machine for any rice season?</p> <p>Yes1 No2 Don't know3</p>		<p>2. If yes, what is the percentage of farmers in your commune that used this [MACHINE]?</p>	<p>3. During the last 12 months, was there any rental service for this [MACHINE] available in your commune?</p> <p>Yes1 No2 ---> Next row Don't know..3 ---> Next row</p>	<p>4. If yes, who provide rental service for this [MACHINE]? (multiple choice)</p> <p>Individual/Household.....1 Cooperative 2 Farmer group3 Private company4 Other5</p>
	Name of machine		NUMBER	CODE	CODE
1	Row seeder		...%	[...]	[...]
2	Seed blower		...%	[...]	[...]

ID	<p>1. In the last 12 months, did any farmer in your commune use this machine for any rice season?</p> <p>Yes1 No2 Don't know3</p>		<p>2. If yes, what is the percentage of farmers in your commune that used this [MACHINE]?</p>	<p>3. During the last 12 months, was there any rental service for this [MACHINE] available in your commune?</p> <p>Yes1 No2 ---> Next row Don't know..3 ---> Next row</p>	<p>4. If yes, who provide rental service for this [MACHINE]? (multiple choice)</p> <p>Individual/Household.....1 Cooperative 2 Farmer group3 Private company4 Other5</p>
3	<p>Mini-Combine Harvester</p>		<p>....%</p>	<p>[...]</p>	<p>[...]</p>
4	<p>Combine Harvester</p>		<p>....%</p>	<p>[...]</p>	<p>[...]</p>

ID	<p>1. In the last 12 months, did any farmer in your commune use this machine for any rice season?</p> <p>Yes1 No2 Don't know3</p>		<p>2. If yes, what is the percentage of farmers in your commune that used this [MACHINE]?</p>	<p>3. During the last 12 months, was there any rental service for this [MACHINE] available in your commune?</p> <p>Yes1 No2 ---> Next row Don't know..3 ---> Next row</p>	<p>4. If yes, who provide rental service for this [MACHINE]? (multiple choice)</p> <p>Individual/Household.....1 Cooperative 2 Farmer group3 Private company4 Other5</p>
5	<p>Rice Straw beller</p>	%	[...]	[...]
6	<p>Low Cost Dryer</p>	%	[...]	[...]

ID	1. In the last 12 months, did any farmer in your commune use this machine for any rice season? Yes1 No2 Don't know3		2. If yes, what is the percentage of farmers in your commune that used this [MACHINE]?	3. During the last 12 months, was there any rental service for this [MACHINE] available in your commune? Yes1 No2 ---> Next row Don't know..3 ---> Next row	4. If yes, who provide rental service for this [MACHINE]? (multiple choice) Individual/Household.....1 Cooperative 2 Farmer group3 Private company4 Other5
7	Others (specify)%	[...]	[...]

5. At any time in the past 5 years, has any farmer in your commune used a laser levelling machine to level the ground in his/her farm land?

- Yes1
- No2
- Don't know3



[...]

6. During the last 12 months, was there any rental service for the laser levelling machine available in your commune?

- Yes1
- No2 ---> Next module
- Don't know3 ---> Next module

[...]

7. If yes, who provides rental service for this laser levelling machine? (multiple choice)

- Individual/Household.....1
- Cooperative 2
- Farmer group3
- Private company4
- Other5

[...]

4.2. AGRICULTURAL PRODUCTION PLANS

Target respondents = Agricultural officers in the commune and Cooperative leaders

<p>1. In the last 12 months, did this commune have a rice production plan?</p> <p>Yes.....1 No.....2 ---> Q3 Do not know....3 ---> Q3</p>	<p>2. At which administrative level was this agriculture plan designed?</p> <p>At the province-level.....1 At the district-level.....2 At the commune-level.....3</p>	<p>3. In the last 12 months, did this commune design rice sowing schedules for farmers?</p> <p>Yes, for every cropping season..1 Yes, once a year2 No.....3</p>	<p>4. In the last 12 months, did this commune have a water discharge schedule plan for rice production?</p> <p>Yes.....1 No.....2 Do not know.....3</p>
[...]	[...]	[...]	[...]

If Q1 = 2 or 3 and Q3 = 3 and Q4 = 2 or 3 → Q13

<p>5. In the last rice production plan, was the weather mentioned to be a normal or an extreme year?</p> <p>Normal year.....1 Extreme year.....2 Do not know.....3</p>	<p>6. Is your commune identified as having high risk of drought?</p> <p>Yes.....1 No.....2 ---> Q8 Do not know....3 ---> Q8</p>	<p>7. In your opinion, what is the percentage of the rice production area in your commune identified as high risk of drought?</p> <p>< 5%.....1 5 - 15%.....2 15-30%.....3 30-45%.....4 45-60%.....5 60-75%.....6 > 75%.....7 Do not know8</p>	<p>8. Is your commune identified as having high risk of flooding?</p> <p>Yes.....1 No.....2 ---> Q10 Do not know....3 ---> Q10</p>	<p>9. In your opinion, what is the percentage of the rice production area in your commune identified as high risk of flooding?</p> <p>< 5%.....1 5 - 15%.....2 15-30%.....3 30-45%.....4 45-60%.....5 60-75%.....6 > 75%.....7 Do not know8</p>
[...]	[...]	[...]	[...]	[...]

10. In the last 12 months, did your commune rely on rice production plans to provide the following recommendations in your commune? Yes..... 1 No..... 2		11. If yes, for which cropping season have you delivered the advance? If Yes ---> Q12				12. If Yes, was this advice given to mitigate risks related to climate (drought, flooding, or saltwater intrusion) on rice production?			
		Winter-Spring	Summer-Autumn	Autumn-Winter	Wet season (Mua)	Winter-Spring	Summer-Autumn	Autumn-Winter	Wet season (Mua)
Not cultivate rice in a particular season	[...] IF SELECT 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Shifting from rice to another crop	[...] IF SELECT 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Change in rice sowing/planting dates	[...] IF SELECT 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Rice varieties to sow	[...] IF SELECT 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Shifting to shorter-duration rice varieties	[...] IF SELECT 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Change in plot irrigation schedule	[...] IF SELECT 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]

For the MRD region only (13 provinces)

<p>13. Do farmers in this commune receive Agro-Climatic Bulletins that deliver recommendations based on weather forecasts ?</p> <p>Yes.....1 No.....2 ----> END Module Do not know....3 ----> END Module</p>	<p>14. If yes, how often do farmers receive Agro Climatic Bulletin ?</p> <p>Seasonal.....1 Monthly2 Every 10-day...3 Other (specify)4</p>	<p>15. Which crops did the Agro Climatic Bulletins cover?</p> <p>[MULTIPLE ANSWERS POSSIBLE]</p> <p>Rice.....1 Leafy Vegetable.....2 Fruit.....3 Other (Specify:___).....4</p>
<p>[....]</p>	<p>[....]</p>	<p>[....]</p>

Here is an example of an Agro-Climatic Bulletin at the seasonal level

The image shows a detailed agro-climatic bulletin from the Ministry of Agriculture, Forestry and Fisheries of Vietnam. It is titled 'BẢN TIN THỜI TIẾT NÔNG VỤ' (Agricultural Weather Bulletin) for the period of August 2022 to August 2023. The bulletin is organized into several sections:

- Summary:** Provides a quick overview of the weather outlook and key agricultural messages.
- Weather Forecast:** A table showing daily weather forecasts for the next 15 days, including temperature ranges, precipitation, and wind conditions.
- Crop-Specific Advice:** Detailed recommendations for various crops:
 - Rice:** Advice on sowing, irrigation, and pest management.
 - Maize:** Recommendations for planting and fertilization.
 - Vegetables:** Guidelines for sowing and growing different types of leafy and fruiting vegetables.
 - Other Crops:** Brief advice for other agricultural products.
- General Agricultural Advice:** Tips on soil management, water conservation, and pest/disease control.
- Weather Alerts:** Information on any significant weather events or risks.

4.3. PAYMENTS FOR FOREST ENVIRONMENTAL SERVICES (PFES)

Target respondents =Vice President in charge of Agriculture/Forestry, Officer of Agriculture/Forestry Department

<p>1. In the year 2023, did your commune have any Payments for Forest Environmental Services area?</p> <p>Yes1 No2 >> End Module 4.3</p>	<p>2. In the year 2023, what was the area of Payments for Forest Environmental Services forests in your commune?</p> <p><i>(If the area changed over the course of the year, please give us the area that was under forests when it was the maximum.)</i></p>	<p>3. In which year did the Payments for Forest Environmental Services scheme start in your commune?</p>	<p>4. What type of companies are the Payments for Forest Environmental Services users of your commune in 2023?</p> <p><i>(Multiple choice – choose all that apply)</i></p> <p><i>Hydropower plant ...1 Utility water company.....2 Ecotourism company...3 Industrial water use...4 Other (specify)....5</i></p>
<p>CODE</p>	<p>HÉC-TA</p>	<p>YEAR (YYYY)</p>	<p>CODE</p>
<p>[...]</p>	<p>[.....]</p>	<p>[.....]</p>	<p>[...]</p>

INFORMATION ABOUT FOREST ENVIRONMENTAL SERVICES SUPPLIERS IN THE COMMUNE IN 2023						
<i>(For each category of service provider who existed in your commune in 2023, please tell me the number of providers in the category, the total Payments for Forest Environmental Services area that they provided, and the payment rate they received.)</i>						
Category of Payments for Forest Environmental Services provider		5. Were there any providers in this category in your commune?		6. If yes, number of Payments for Forest Environmental Services providers in this category?	7. If yes, total Payments for Forest Environmental Services area (hectare) provided by this category of provider	8. If yes, what payment rate did they receive in 2023? (VND/ hectare) <i>If they did not receive payment, write zero</i>
		Yes.....1 No2				
		CODE		NUMBER	HÉC-TA	THOUSAND DONG/HA
Organized by the forest owner	1. Management board of protected or special use forests (National parks, Border station, etc.)	[...]	IF SELECT 1 >>>	[.....]	[.....]	[.....]
	2. Forestry company	[...]	IF SELECT 1 >>>	[.....]	[.....]	[.....]
Commune People's Committees and organizations are assigned to protect forests	3. Commune People's Committee or political-social organizations (Women's Union, Youth Union, Veteran's Union, etc.)	[...]	IF SELECT 1 >>>	[.....]	[.....]	[.....]
	4 Group of households or villages who received pooled Payments for Forest Environmental Services payments are pooled	[...]	IF SELECT 1 >>>	[.....]	[.....]	[.....]
Households	5. Households that directly receive Payments for Forest Environmental Services payments	[...]	IF SELECT 1 >>>	[.....]	[.....]	[.....]

9. In the year 2023, how much forest area of each type did your commune have (in hectares)? <i>(If write 0 for any type of forest unavailable)</i>		9B. If having production forest, please list the 3 most grown crops? <i>(Write CODE of 3 crops)</i>	
HÉC-TA		CODE	
1. Protected forest	[.....]	1. Acacia	
2. Special use forest	[.....]	2. Eucalyptus	
3. Production forest	[.....]	3. Macadamia	
		4. Pine	
		5. Erythrophleum fordii	[...]
		6. Magnolia hypolampra	[...]
		7. Cinnamon	[...]
		8. Star anise	
		9. Melaleuca	
		10. Bamboo	
		11. Other (specify)	

OTHER FOREST PROTECTION AND DEVELOPMENT SUPPORT IN 2023					
Allowance source	10. Are there any households or organizations in your commune that will receive other supports to protect and develop forests in 2023? Yes.....1 No2	11. Payment rate			12. Total amount
	CODE		RATE <i>(thousand dong)</i>	UNIT <i>(Ha or commune)</i>	RATE * UNIT <i>(thousand dong)</i>
1. Forest protection allowance		IF SELECT 1 >>>	[...] thousand dong/ha	[...] ha	
2. Allowance for communities in the buffer zone of special use forests		IF SELECT 1 >>>	[...] thousand dong/commune	[...] commune	
3. Allowance for forest regeneration		IF SELECT 1 >>>	[...] thousand dong/ha	[...] ha	
4. Allowance for Certificate of Sustainable Forest Management		IF SELECT 1 >>>	[...] thousand dong/ha	[...] ha	
5. Allowance to plant scattered forests		IF SELECT 1 >>>	[...] thousand dong/ha	[...] ha	
6. Allowance for natural production forest protection during forest closure		IF SELECT 1 >>>	[...] thousand dong/ha	[...] ha	
7. Forest protection at commune level		IF SELECT 1 >>>	[...] thousand dong/ha	[...] ha	

8. Other (specify)		IF SELECT 1 >>>	specify	specify	
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Annex B. VHLSS Questionnaires (Vietnamese versions)

Modules integrated into VHLSS 2022

4B1. Trồng trọt

4B1.1a. Trong 12 tháng qua hộ [ông/bà] có thu hoạch sản phẩm nào từ sản xuất trồng trọt không? (kể cả sản phẩm phụ và sản phẩm thu nhặt từ trồng trọt)

1 – Có

2 – Không

4B1.1b. Có phải do thiên tai, dịch bệnh, ô nhiễm môi trường làm thiệt hại sản xuất không?

1 – Có

2 – Không

4B1.1. Cây lúa

	2	3	3a	3b	4	5
	Hộ [ông/bà] đã thu hoạch những loại lúa nào trong 12 tháng qua?	Diện tích gieo trồng [...] trong 12 tháng qua là bao nhiêu?	Ông bà bắt đầu gieo sạ/mạ cho vụ [...] khi nào? Điền ngày bắt đầu ĐIỀU TRA VIÊN: NẾU LÚA ĐƯỢC TRỒNG NHIỀU LẦN TRONG MỘT MÙA, HÃY GHI NGÀY GIEO/TRỒNG THÀNH CÔNG GẦN NHẤT	Ngày đó tính theo âm lịch hay dương lịch? 1 - Âm lịch 2 - Dương lịch	[Ông/bà] đã bán/đổi bao nhiêu trong tổng sản lượng [...] thu hoạch trong 12	Giá trị sản phẩm đã thu hoạch được trong 12 tháng qua?

								tháng qua?	
	Đánh dấu X nếu có	X	M2	NGÀY	THÁNG	NĂM	MÃ	KG	NGHÌN ĐỒNG
1	Lúa tẻ cả năm?								
2	Lúa tẻ Đông Xuân?								
3	Lúa tẻ Hè Thu?								
4	Lúa tẻ mùa/ Thu Đông?								
5	Lúa tẻ trên đất nương rẫy?								
6	Lúa nếp cả năm?								
7	Lúa đặc sản cả năm?								

4B1.1.1. Thực hành quản lý canh tác lúa tiên tiến

ĐTV KIỂM TRA PHẦN 4B1.1 XEM HỘ CÓ THU TỪ CÂY LÚA TRONG 12 THÁNG QUA KHÔNG?

1 - Có (>>> Q2)

2 - Không (>>> Phần 4B1.1.2)

2	3	4				5				
<p>2. Trong 12 tháng qua, hộ [ông/bà] có nhận được lời khuyên của cán bộ chính quyền về [...] không?</p> <p>(Cán bộ chính quyền gồm cán bộ chuyên môn về nông nghiệp các cấp, cán bộ ủy ban nhân dân, hợp tác xã, cán bộ khuyến nông, tổ trưởng dân phố, trưởng thôn)</p> <p>CÓ.....1 KHÔNG.....2 (>> DÒNG TIẾP THEO)</p>	<p>[Ông/Bà] có áp dụng lời khuyên này trên ít nhất một thửa ruộng không?</p> <p>CÓ.....1 KHÔNG.....2 (>> DÒNG TIẾP THEO)</p>	<p>[Ông/Bà] áp dụng lời khuyên này cho vụ nào?</p> <p>CÓ.....1 KHÔNG.....2</p> <table border="1"> <tr> <td>Đông Xuân</td> <td>Hè Thu</td> <td>Thu Đông</td> <td>Mùa</td> </tr> </table>				Đông Xuân	Hè Thu	Thu Đông	Mùa	<p>Áp dụng lời khuyên này, [ông/bà] đã chuyển sang sản xuất sản phẩm gì thay cho cây lúa?</p> <p>1 - Nuôi tôm 2 - Cây ăn quả 3 - Trồng sen hoặc hạt muồng trâu 4 - Nuôi cá lồng 5 - Trồng rau 6 - Khác</p>
Đông Xuân	Hè Thu	Thu Đông	Mùa							

		TIẾP THEO)						[ĐIỀU TRA VIÊN: NẾU NHIỀU HƠN MỘT VỤ, CHỌN VỤ ĐÔNG_XUÂN]
Không trồng lúa trong một vụ	NẾU 1 >>>	NẾU 1 >>>						
Chuyển từ cây lúa sang sản xuất sản phẩm khác	NẾU 1 >>>	NẾU 1 >>>	>>>	>>>	>>>	>>>		
Thay đổi ngày gieo sạ/mạ	NẾU 1 >>>	NẾU 1 >>>						
Các giống lúa để trồng	NẾU 1 >>>	NẾU 1 >>>						
Chuyển sang các giống lúa ngắn ngày hơn	NẾU 1 >>>	NẾU 1 >>>						
Thay đổi lịch tưới tiêu	NẾU 1 >>>	NẾU 1 >>>						

4B1.1.2. Thực hành quản lý sản xuất lúa

	5b	5c	5d
	<p>[Ông/Bà] có biết [...] không?</p> <p>CÓ.....1 KHÔNG.....2 (>> DÒNG TIẾP THEO) NẾU TẤT CẢ CÁC DÒNG ĐỀU MÃ 2 (>> CÂU 10)</p> <p>ĐIỀU TRA VIÊN TRÍCH DẪN TOÀN BỘ THỰC HÀNH QUẢN LÝ SẢN XUẤT LÚA DƯỚI ĐÂY</p>	<p>5c. [Ông/ Bà] có từng áp dụng [...] không?</p> <p>Có ...1 Không...2</p> <p>NẾU TẤT CẢ CÁC DÒNG= 2 >> CÂU 6)</p>	<p>[Ông/Bà] có áp dụng [...] trong vụ Đông Xuân đã thu hoạch vừa qua không?</p> <p>CÓ.....1 KHÔNG.....2</p>
1	VietGAP [Tiêu chuẩn thực hành sản xuất nông nghiệp tốt của Việt Nam]	NẾU 1 >>>	>>
2	Một Phải, Năm Giảm (1P5G)	NẾU 1 >>>	>>

3	Ướt khô xen kẽ ; (2) Khô ngập luân phiên; (3) Nông Lộ Phơi	NẾU 1 >>>	>>	
4	Quản lý tổng hợp dinh dưỡng và dịch hại cây trồng (ICM)	NẾU 1 >>>	>>	
5	Ba Giảm Ba Tăng (3G3T)	NẾU 1 >>>	>>	
6	(1) Hệ thống thâm canh lúa cải tiến; (2) Hệ thống thâm canh lúa tổng hợp (SRI)	NẾU 1 >>>	>>	
7	Thực hành khác: (GHI RÕ.....)	NẾU 1 >>>	>>	

ĐIỀU TRA VIÊN: HỎI NHỮNG CÂU HỎI SAU CHO VỤ ĐÔNG XUÂN ĐÃ THU HOẠCH, CÓ THỂ LÀ VỤ ĐÔNG XUÂN CỦA NĂM 2021 HOẶC 2022 TÙY THUỘC VÀO THỜI ĐIỂM ĐIỀU TRA

6	7	8	9
<p>Trong Vụ Đông Xuân đã thu hoạch vừa qua, [ông/bà] gieo sạ theo phương pháp nào?</p> <p>ĐIỀU TRA VIÊN: MỘT MÁY GIEO HẠT CÓ TỪ 6-8 TRỐNG (ĐƯỜNG KÍNH 16MM), MỖI TRỐNG CÓ MỘT CẶP LỖ (ĐƯỜNG KÍNH 8-9 MM) TRÊN MỖI MẶT CỦA TRỐNG</p> <p>1 - Gieo bằng tay 2 - Máy gieo hạt 3 - Máy thổi hạt 4 - Cây (Tay/Máy) 5 - Khác</p>	<p>Từ giai đoạn sau cấy đến lúc lúa chín, có bao nhiêu lần thửa ruộng được để khô?</p> <p>ĐIỀU TRA VIÊN: MỘT THỬA RUỘNG ĐƯỢC COI LÀ KHÔ KHI MẶT RUỘNG ĐÃ NỨT NẼ. MỘT THỬA RUỘNG CÓ THỂ BỊ KHÔ DO NHIỀU NGUYÊN NHÂN, NHƯ BỊ HẠN HÁN, CÁN BỘ HỢP TÁC XÃ/NGƯỜI DÂN TRÌ HOẢN BƠM NƯỚC,...</p>	<p>Tính trung bình mỗi lần thửa ruộng được để khô bao nhiêu ngày trước khi nước được bơm?</p>	<p>Ông bà có tự quyết định được lịch tưới tiêu trên ruộng của mình không?</p> <p>Có Không, được quyết định bởi HTX/xã Không, được quyết định bởi công ty thủy lợi</p>
MÃ	LẦN (NẾU 0 >> CÂU 10)	NGÀY	MÃ

10	11	12	13	14
<p>[Ông/Bà] có sử dụng hạt giống được chứng nhận không?</p> <p>ĐIỀU TRA VIÊN: TRÊN ÍT NHẤT MỘT THỬA RUỘNG</p>	<p>[Ông/Bà] phun thuốc trừ sâu, thuốc diệt nấm, côn trùng bao nhiêu lần?</p>	<p>[Ông/Bà] thu hoạch bằng phương pháp nào?</p> <p>ĐIỀU TRA VIÊN: CÓ THỂ CHỌN NHIỀU PHƯƠNG ÁN</p> <p>1 - Bằng tay 2 - Sử dụng máy gặt nhỏ/2WT 3 - Sử dụng máy gặt đập liên hợp 4 - Sử dụng máy cuộn rơm</p>	<p>Sau khi thu hoạch, [Ông/Bà] xử lý rơm rạ chủ yếu theo cách nào?</p> <p>1 - Đốt tại ruộng (>>PHẦN 4B1.1.2) 2 - Để tại ruộng để phủ đất (>>PHẦN 4B1.1.2) 3 - Hòa vào đất trên ruộng (>>PHẦN 4B1.1.2) 4 - Chuyển đi một phần khỏi ruộng (>>CÂU 14)</p>	<p>[Ông/Bà] đã làm gì với phần rơm đã chuyển đi khỏi ruộng? CÓ THỂ CHỌN NHIỀU PHƯƠNG ÁN</p> <p>1 - Làm thức ăn gia súc 2 - Dùng để đun nấu</p>

1 - Có 2 - Không		5 - Phương pháp khác	5 - Mang đi hoàn toàn khỏi ruộng (>>CÂU 14) 6 - Khác (>>PHẦN 4B1.1.2)	3 - Sử dụng để trồng năm 4 - Sử dụng làm phân trộn 5 - Bán 6 - Khác
MÃ	LÃN	MÃ	MÃ	MÃ

4B1.1.2. LIỆT KÊ THỪA RUỘNG ĐỂ LẤY MẪU LÁ LÚA

ĐTV KIỂM TRA XEM HỘ CÓ ĐƯỢC THU THẬP THÔNG TIN TRONG THÁNG 1, 2, 3 VÀ ĐƯỢC CHỌN ĐỂ LẤY MẪU LÁ LÚA KHÔNG??

1 – Có (>> Q2)

2 – Không (>> PHẦN 4B1.1.3)

ĐIỀU TRA VIÊN: Vui lòng cho tôi xin tên toàn bộ thửa ruộng Ông/Bà canh tác trong vụ này

P	2	3	4
L	Tên thửa ruộng	Cây lúa trồng trên thửa ruộng [...] đang ở	Chọn thửa ruộng
		giai đoạn sinh trưởng nào?	
O		Dưới 20 ngày tính từ ngày gieo	ĐTV ĐẾM SỐ THỪA RUỘNG
		hạt.....1	
T		(>> THỪA TIẾP THEO)	HIỆN CÓ, TẠO RA MỘT SỐ
C		Trên 20 ngày tính từ ngày gieo hạt.....2	NGẪU NHIÊN VÀ CHỌN
O		(>> Q4)	THỪA RUỘNG MANG SỐ ĐÓ.
D			GHI LẠI MÃ THỪA THUỘC
E			VÀO PHẦN TIẾP THEO
1			
2			
3			
4			
5			

4B1.1.3 Chọn mẫu lá lúa

ĐTV TIẾP TỤC VỚI THỬA RUỘNG ĐƯỢC CHỌN ĐỂ LẤY MẪU LÁ LÚA Ở PHẦN 4B1.1.2

1	2	3	4	5
MÃ THỬA RUỘNG ĐƯỢC CHỌN ĐỂ LẤY MẪU LÁ LÚA? [Ghi chú: Điền tự động]	TÊN THỬA RUỘNG [Ghi chú: Điền tự động]	Diện tích canh tác của thửa ruộng này là bao nhiêu?	Có bao nhiêu giống lúa được trồng trên thửa ruộng này?	Giống lúa chính được trồng trên thửa ruộng này có tên là gì?
ID	TÊN THỬA RUỘNG	M2	SỐ LƯỢNG	TÊN GIỐNG

6	7	8	9
Giống lúa chính được trồng trên thửa ruộng này thuộc loại nào trong các loại sau? Truyền thống.....1 Cải tiến.....2 Không biết.....3	[Ông/Bà] có trồng giống lúa được chứng nhận trên thửa ruộng này ko? CÓ.....1 KHÔNG2	Nguồn gốc của hạt giống trồng trên thửa ruộng này là gì? Tự sản xuất.....1 Tổ nhóm sản xuất/Câu lạc bộ hạt giống2 Công ty giống.....3 Viện nghiên cứu/Trường đại học ...4 Khuyến nông5 Hợp tác xã ...6 Cửa hàng tư nhân/người bán buôn ...7 Khác ...8 Nếu 1 >>> Câu 10 Nếu không chọn 1 >>> Phần tiếp theo	[Ông/Bà] đã sử dụng lại giống chính được trồng trên thửa ruộng này trong bao nhiêu vụ rồi? NẾU LÀ GIỐNG MỚI ĐƯỢC MUA, ĐIỀN 0
MÃ	MÃ	MÃ	SỐ LƯỢNG

S T T	10. Giống chính này có phải là giống:	
	ĐIỀU TRA VIÊN: TRÍCH DẪN TOÀN BỘ CÁC LOẠI GIỐNG DƯỚI ĐÂY. ĐÁNH DẤU VÀO Ô NẾU CÓ	ĐÁNH DẤU X NẾU CÓ <input checked="" type="checkbox"/>
1	Chịu mặn	
2	Chịu ngập úng	
3	Chịu khô hạn	
4	Chịu nhiệt độ cao	
5	Chịu lạnh/rét	
6	Chịu axit sulfuric	

11. Ông/Bà có áp dụng [...] trên thửa ruộng này không?		
	TRÍCH DẪN TOÀN BỘ THỰC HÀNH DƯỚI ĐÂY	ĐÁNH DẤU X NẾU CÓ
1	VietGAP [Tiêu chuẩn thực hành sản xuất nông nghiệp tốt của Việt Nam]	
2	Một Phải, Năm Giảm (1P5G) [One Must Do, Five Reduction (1M5R)]	
3	(1) Tưới ướt khô xen kẽ ; (2) Khô ngập luân phiên; (3) Nông Lộ Phơi [Alternate Wetting and Drying (AWD)]	
4	Quản lý tổng hợp dinh dưỡng và dịch hại cây trồng [Integrated Crop Management (ICM)]	
5	Ba Giảm Ba Tăng (3G3T) [Three Reductions, Three gains (3R3G)]	
6	(1) Hệ thống thâm canh lúa cải tiến; (2) Hệ thống thâm canh lúa tổng hợp [System of Rice Intensification (SRI)]	
7	Thực hành khác: (GHI RÕ.....)	

	12.		13
TT	<p>Trong vụ Đông Xuân, Ông/Bà có nhận được lời khuyên của cán bộ chính quyền về [...] không?</p> <p>(Cán bộ chính quyền gồm cán bộ chuyên môn về nông nghiệp các cấp, cán bộ ủy ban nhân dân, hợp tác xã, cán bộ khuyến nông, tổ trưởng dân phố, trưởng thôn)</p> <p>CÓ.....1</p> <p>KHÔNG.....2 (>> DÒNG TIẾP THEO)</p>		<p>Ông/Bà có áp dụng lời khuyên đó trên thửa ruộng này không?</p> <p>CÓ.....1</p> <p>KHÔNG.....2</p>
			MÃ
1	Chuyển từ cây lúa sang sản xuất sản phẩm khác	NẾU 1 >>>	
2	Thay đổi ngày gieo sạ/mạ	NẾU 1 >>>	
3	Các giống lúa để trồng	NẾU 1 >>>	
4	Chuyển sang các giống lúa ngắn ngày hơn	NẾU 1 >>>	
5	Thay đổi lịch tưới tiêu	NẾU 1 >>>	

14		15	16	17	
NGÀY CHỌN THỬA RUỘNG		CHỤP ẢNH VỊ TRÍ CỦA MẪU ĐƯỢC LẤY TRÊN THỬA RUỘNG	BARCODE CỦA MẪU LÁ CBKS: QUÉT BARCODE	TỌA ĐỘ GPS CỦA 1 GÓC THỬA RUỘNG CBKS: LƯU TỌA ĐỘ GPS	
NGÀY	THÁNG	ẢNH	BARCODE	KINH ĐỘ (LONGITUDE)	VĨ ĐỘ (LATITUDE)

Modules Integrated into VHLSS 2023

4B. Các hoạt động sản xuất nông, lâm nghiệp, thủy sản

4B1. Trồng trọt

4B1.1a. Trong 12 tháng qua hộ [ông/bà] có thu hoạch sản phẩm nào từ sản xuất trồng trọt không (kể cả sản phẩm phụ và sản phẩm thu nhập từ trồng trọt)?

1 - Có

2 - Không

4B1.1b. Có phải do thiên tai, dịch bệnh, ô nhiễm môi trường làm thiệt hại sản xuất không?

1 - Có

2 - Không

4B1.1. Cây lúa

	2	3	3a	3b	4	5	6	7	8
T	Hộ [ông/bà] đã thu hoạch những loại lúa nào trong 12 tháng qua?	Diện tích gieo trồng [...] trong 12 tháng qua là bao nhiêu?	Ông bà bắt đầu gieo sạ/mạ cho vụ [...] khi nào?	Ngày gieo sạ/mạ được ghi theo lịch nào?	Hộ [ông/bà] đã thu hoạch được bao nhiêu [...] trong 12 tháng qua?	Bao nhiêu [...] thu hoạch bị mất do chuột bọ, mục nát hay lý do khác?	[Ông/bà] đã bán/đổi bao nhiêu trong tổng sản lượng [...] thu hoạch trong 12 tháng qua?	Tổng số tiền [ông/bà] đã thu được do bán/đổi [...] trong	Giá trị sản phẩm đã thu hoạch được trong 12 tháng qua?
H			NẾU KHÔNG NHỚ CHI TIẾT CÁC VỤ LÚA TẺ THÌ GHI TỔNG SỐ VÀO	NẾU TRONG MỘT VỤ LÚA ĐƯỢC GIEO SẠ/MẠ NHIỀU LẦN THÌ ĐIỀN NGÀY GIEO CUỐI CÙNG	Âm lịch ... 1		Tính tất cả những lần		
Ư									

	DÒNG LÚA TÊ CẢ NĂM					Dương lịch ...2				bán của sản lượng thu hoạch 12 tháng qua	12 tháng qua là bao nhiêu?	
										NẾU KHÔNG BÁN, ĐỔI GHI 0 VÀ >>8		
	Đánh dấu X nếu có											
		X										
			M2	NGÀY	THÁNG	NĂM		KG	KG	KG	NGHÌN ĐỒNG	NGHÌN ĐỒNG
1	Lúa tẻ cả năm?			x	x	x						
2	Lúa tẻ Đông Xuân?											
3	Lúa tẻ Hè Thu?											
4	Lúa tẻ mùa/ Thu Đông?											
5	Lúa tẻ trên đất nương rẫy?											
6	Lúa nếp cả năm?											
7	Lúa đặc sản cả năm?											

4B1.1.A. Hệ thống sản xuất lúa

4B1.1.A.1. Hệ thống sản xuất lúa thích ứng

ĐIỀU TRA VIÊN KIỂM TRA PHẦN 4B1.1 XEM HỘ CÓ THU TỪ CÂY LÚA TRONG 12 THÁNG QUA?

1 - Có (>>> Q2)

2 - Không (>>> Phần tiếp theo)

	2	3	4	5
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THỨ TƯ	Trong 12 tháng qua, hộ [ông/bà] có nhận được khuyến cáo/thông báo của cán bộ chính quyền về? (ĐIỀU TRA VIÊN: CÁN BỘ CHÍNH QUYỀN GỒM CÁN BỘ CHUYÊN MÔN VỀ NÔNG NGHIỆP CÁC CẤP, CÁN BỘ ỦY BAN NHÂN DÂN, HỢP TÁC XÃ, CÁN BỘ KHUYẾN NÔNG, TỔ TRƯỞNG DÂN PHỐ, TRƯỞNG THÔN, ĐÀI TRUYỀN THANH XÃ) Có.....1 Không.....2 (>> DÒNG TIẾP THEO)		Ông/Bà có áp dụng lời khuyên này trên ít nhất một thửa ruộng không? Có.....1 Không....2 (>> DÒNG TIẾP THEO)	[Ông/Bà áp dụng lời khuyên này cho vụ [...] không? Có.....1 Không....2				Áp dụng lời khuyên này, [ông/bà] đã chuyển sang sản xuất sản phẩm gì thay cho cây lúa? ĐIỀU TRA VIÊN: NẾU CHUYỂN ĐỔI SẢN XUẤT CHO NHIỀU VỤ, CHỌN SẢN PHẨM CHUYỂN ĐỔI CỦA VỤ ĐÔNG XUÂN 1 - Nuôi tôm 2 - Cây ăn quả 3 - Sen hoặc hạt muồng trâu 4 - Nuôi cá lồng 5 - Trồng rau 6 - Sản phẩm khác DÒNG TIẾP THEO
	Vụ Đông Xuân	Vụ Hè Thu	Vụ Thu Đông	Vụ Mùa	MÃ SẢN PHẨM			
1	Không trồng lúa trong một vụ	NẾU 1 >>>	NẾU 1 >>>					
2	Chuyển từ cây lúa sang sản xuất sản phẩm khác	NẾU 1 >>>	NẾU 1 >>>	>>>	>>>	>>>	>>>	
3	Thay đổi ngày gieo sạ/mạ	NẾU 1 >>>	NẾU 1 >>>					
4	Các giống lúa để trồng	NẾU 1 >>>	NẾU 1 >>>					

5	Chuyển sang các giống lúa ngắn ngày hơn	NẾU 1 >>>	NẾU 1 >>>					
6	Thay đổi lịch tưới tiêu	NẾU 1 >>>	NẾU 1 >>>					

Các Hợp phần từ A2 to A7 ĐƯỢC HỎI CHO VỤ ĐÔNG XUÂN ĐÃ THU HOẠCH GẦN NHẤT TRONG 12 THÁNG QUA.

NẾU HỘ KHÔNG TRỒNG LÚA TRONG VỤ ĐÔNG XUÂN, HỎI CÁC CÂU HỎI NÀY CHO VỤ ĐÃ THU HOẠCH GẦN NHẤT.

4B1.1.A.2. Sử dụng giống

1	2	3
<p>Trong Vụ Đông Xuân vừa qua, [ông/bà] gieo hạt/ cấy lúa bằng phương pháp nào trên thửa/ mảnh ruộng lớn nhất?</p> <p>1- Gieo bằng tay/ sạ lan 2 - Sử dụng máy kéo hàng 3 - Sử dụng máy thổi hạt 4 - Cấy bằng tay - mạ sân/ mạ nền cứng 5 - Cấy bằng tay - mạ dục/ mạ ruộng 6 - Cấy bằng máy 7 - Phương pháp khác 99 - Không biết If 1, 2, 3, 7, 99>>>Q7</p>	<p>Trong vụ Đông Xuân vừa qua, ông bà sử dụng bao nhiêu kg/ cân/ kí hạt giống trên 1 [đơn vị diện tích] cho thửa/ mảnh ruộng lớn nhất?</p> <p>1 - Sào Bắc Bộ (360m²) 2 - Sào Trung Bộ (500m²) 3 - Sào Nam Bộ hay Công Nhà nước (1000m²) 4 - Công Tầm Cắt (1296m²) 5 - M2 99 - Không biết</p> <p>NẾU 99>>>Q8</p>	<p>Ông/Bà đã sử dụng lượng hạt giống này cho vụ Đông Xuân trên thửa ruộng chính bao nhiêu năm rồi?</p> <p>[ĐIỀU TRA VIÊN: NẾU KHÔNG NHỚ ĐIỀN 99]</p>
GHI MÃ	GHI MÃ	GHI SỐ KG
		GHI SỐ NĂM

4	5	6
<p>Trước đó Ông/Bà sử dụng lượng hạt giống như thế nào?</p> <p>1 - Sào Bắc Bộ (360m²) 2 - Sào Trung Bộ (500m²) 3 - Sào Nam Bộ hay Công Nhà nước (1000m²) 4 - Công Tầm Cắt (1296m²) 5 - M2 99 - Không biết</p>	<p>Tvụ Đông Xuân vừa qua, Ông/Bà có sử dụng giống xác nhận không? [ĐIỀU TRA VIÊN: ĐỌC TẤT CẢ CÁC LỰA CHỌN, CHỌN MỘT]</p> <p>1 - Chỉ sử dụng giống xác nhận 2 - Sử dụng cả giống xác nhận và giống tự sản xuất/ giống từ nông dân khác 3 - Chỉ sử dụng giống tự sản xuất/ giống từ nông dân khác 99 - Không biết</p>	<p>Trong vụ Đông Xuân vừa qua, giống lúa chính Ông/Bà đã trồng có tên là gì?</p>
GHI MÃ	GHI SỐ KG	GHI MÃ
		GHI TÊN GIỐNG

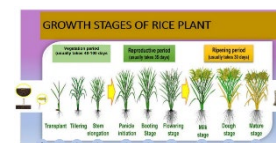
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4B1.1.A.3. Sử dụng thuốc bảo vệ thực vật

1	2a	2b
Trong vụ Đông - Xuân vừa qua, ông/bà đã sử dụng thuốc bảo vệ thực vật bao nhiêu lần trên mảnh ruộng chính? (gồm thuốc diệt cỏ, diệt ốc, diệt chuột, thuốc trừ sâu-bệnh)?	Trong đó, bao nhiêu lần ông/bà sử dụng thuốc trừ sâu và thuốc diệt nấm bệnh (không bao gồm thuốc diệt ốc, diệt cỏ, diệt chuột)?	Nếu 0, [Ông/Bà] có thấy sâu, bệnh, nấm xuất hiện trên mảnh ruộng chính của hộ trong vụ Đông xuân vừa qua không? 1 - Có 2 - Không
SỐ LẦN	SỐ LẦN	GHI MÃ




ĐIỀU TRA VIÊN: LIỆT KÊ TẤT CẢ CÁC LẦN PHUN THUỐC TRỪ SÂU, DIỆT NẤM BỆNH TỪ LÚC GIEO




	3	4	5	6
ID	<p>Ông/bà sử dụng thuốc lần này cho đối tượng/ con/ bệnh gì?</p> <p>DANH SÁCH SÂU, BỆNH</p>	<p>ông/Bà sử dụng thuốc BVTV này cho mục đích gì?</p> <p>1 - Phòng ngừa (chưa có dấu hiệu mà xịt)</p> <p>2 - Diệt/trị sâu, bệnh (có dấu hiệu nên xịt)</p> <p>3 - Nuôi dưỡng</p> <p>99 - Không biết</p>	<p>Ông/bà đã sử dụng thuốc BVTV vào thời kỳ sinh trưởng nào của cây lúa?</p> <p>[ĐIỀU TRA VIÊN: DÙNG HÌNH ẢNH HỖ TRỢ TRỰC QUAN VÀ ĐỂ HỘ CHỈ RÕ GIAI ĐOẠN PHÁT TRIỂN CỦA CÂY LÚA]</p> <p>0 - Giai đoạn 0</p> <p>1 - Từ 0 đến 1</p> <p>2 - Giai đoạn 1</p> <p>3 - Từ 1 đến 2</p> <p>4 - Giai đoạn 2</p> <p>5 - Từ 2 đến 3</p> <p>6 - Giai đoạn 3</p> <p>7 - Từ 3 đến 4</p> <p>8 - Giai đoạn 4</p> <p>9 - Từ 4 đến 5</p> <p>10 - Giai đoạn 5</p> <p>11 - Từ 5 đến 6</p> <p>12 - Giai đoạn 6</p> <p>13 - Từ 6 đến 7</p> <p>14 - Giai đoạn 7</p> <p>15 - Từ 7 đến 8</p> <p>16 - Giai đoạn 8</p> <p>17 - Từ 8 đến 9</p> <p>18 - Giai đoạn 9</p>	<p>Ông bà trộn bao nhiêu loại thuốc cùng lúc trong lần sử dụng thuốc này?</p>
	GHI MÃ	GHI MÃ	GHI MÃ	GHI SỐ
1				
2				
...				








DANH SÁCH SÂU BỆNH TRONG CÂU A3.Q3



Ghi chú: CAPI tự động hiển thị câu trả lời: Người điều tra nhập tên loài gây hại và CAPI hiển thị câu trả lời gần nhất với câu trả lời mà người điều tra đã nhập (có hình ảnh của loài gây hại) để người điều tra xác nhận với người trả lời và chọn tùy chọn phù hợp.




ID	Tên Tiếng Việt	Hình ảnh hỗ trợ trực quan	Tên tiếng Anh
1	Sâu cắn gié; Sâu keo; Sâu cắn chên; Sâu đàn.		Paddy armyworm, Rice ear-cutting caterpillar, Paddy swarming caterpillar
2	Sâu phao; Sâu phao bướm trắng; Sâu phao đục bẹ.		Rice caseworm; Leaf-sheath borer
3	Sâu sừng xanh		Rice horn caterpillar, Rice butterfly




4	Sâu cuốn lá (nhỏ)		Rice leafroller, Rice leaf folder
5	Sâu gai (lúa); Bọ gai;		Rice hispa
6	Châu chấu lúa; Cào cào xanh;		Rice grasshoppers

7	Sâu đục thân			Stem borer-related
8	Rầy nâu; Muỗi nâu;			Brown planthopper
9	Rầy xanh;			Rice green leafhopper

10	Rầy lưng trắng;		White-backed planthopper
11	Muỗi hành; Sâu năn; Muỗi năn; Lúa năn;		(Asian) Rice (stem) gall midge
12	Rầy phấn trắng; Rầy cánh trắng, Bọ phấn trắng; Rầy phấn.		Rice whitefly
13	Ruồi đục lá lúa; Giòi đục lá; Ruồi/ giòi đục nõn/ ngọn.		Rice leaf miner; Rice whorl maggot
14	Bọ xít		Rice seed bug-related

15	Bọ trĩ, bù lạch, mò lửa, mò;		Rice thrips
16	Nhện gié; Bệnh cạo gió; Bệnh nấm bẹ;		Panicle rice mite
17	Cháy bìa lá lúa; Cháy lá; Bạc lá lúa;		Rice leaf blight; Bacterial leaf blight (BLB)
18	Đốm sọc lá lúa; Đốm sọc vi khuẩn hại lúa; Bệnh sọc trong;		Bacterial leaf streak (of rice); Bacterial grain rot

19	Lem lép hạt, Lép vàng; Thối hạt;		Bacterial panicle blight
20	Đạo ôn;		Rice blast; rice blast fungus On leaf: Leaf rice blast On rachis: Rachis rice blast
21	Đốm nâu; Tiêm lửa;		Brown spot disease; Rice brown leaf spot
22	Vàng lá chín sớm; Vàng lá;		Red stripe disease (yellow leaf disease)

23	Đốm vằn, khô vằn		Rice sheath blight
24	Thối bẹ (lúa);		Stem rot; Rice sheath rot
25	Bệnh lúa von; Bệnh bakanae; Bệnh thối gốc; Bệnh vuron lóng; Bệnh mạ đục;		Bakanae disease of rice
26	Bệnh lan truyền bởi rầy/ rầy nâu		Plant hoppers-related virus
27	Bệnh tuyến trùng hại rễ lúa; Bệnh bươu rễ lúa		e

4B1.1.A.4. Sử dụng phân bón


Trong vụ Đông Xuân vừa qua, ông/ bà đã sử dụng phân bón hóa học bao nhiêu lần trên mảnh ruộng lớn nhất của mình??

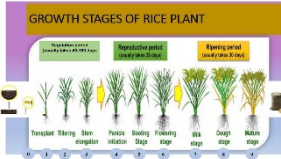
NUMBER OF TIMES

ĐIỀU TRA VIÊN: CHỈ TÍNH PHÂN BÓN HÓA HỌC. LIỆT KÊ TỪNG LẦN ÁP DỤNG THEO THỨ TỰ TỪ GIAI ĐOẠN LÀM ĐẤT CHO ĐẾN THU HOẠCH

	2	3	4	5			
I D	<p>Ông/ bà bón loại phân bón nào?</p> <p>1 - Phân đạm 2 - Phân lân 3 - Phân Kali 4 - NPK 5 - DAP 88 - Khác (ghi rõ)</p>	<p>Ông/ bà có biết công thức hóa học/ tỉ lệ thành phần của phân bón này không?</p> <p>Ví dụ: NPK 20-20-15, đạm Ure hay phân Armoni</p>	<p>Ông/ bà dùng bao nhiêu kg phân này trên 1 [đơn vị diện tích]?</p> <p>1 - Sào Bắc Bộ (360m²) 2 - Sào Trung Bộ (500m²) 3 - Sào Nam Bộ hay Công Nhà nước (1000m²) 4 - Công Tầm Cát (1296m²) 5 - M2</p>	<p>Ông/Bà bón phân này khi lúa đang ở giai đoạn phát triển nào?</p> <p>[ĐIỀU TRA VIÊN: DÙNG HÌNH ẢNH HỖ TRỢ TRỰC QUAN VÀ ĐỂ HỘ CHỈ RÕ GIAI ĐOẠN PHÁT TRIỂN CỦA CÂY LÚA]</p>	<p>0 - Giai đoạn 0 1 - Từ 0 đến 1 2 - Giai đoạn 1 3 - Từ 1 đến 2 4 - Giai đoạn 2 5 - Từ 2 đến 3 6 - Giai đoạn 3 7 - Từ 3 đến 4 8 - Giai đoạn 4 9 - Từ 4 đến 5</p>	<p>10 - Giai đoạn 5 11 - Từ 5 đến 6 12 - Giai đoạn 6 13 - Từ 6 đến 7 14 - Giai đoạn 7 15 - Từ 7 đến 8 16 - Giai đoạn 8 17 - Từ 8 đến 9 18 - Giai đoạn 9</p>	
	GHI MÃ	N	P	K	SỐ KG	GHI MÃ	GHI MÃ
1							
2							

4B1.1.A.5. Sử dụng nước

1	2	3	4
<p>Trong vụ Đông - Xuân vừa qua, ông/Bà sử dụng nước từ nguồn nào trong các nguồn dưới đây?</p> <p>1 - Hợp tác xã, Trung tâm dịch vụ thủy nông 2 - Đại lý cấp 2 3 - Chỉ từ nguồn tự bơm 4 - Vừa tự bơm, vừa nguồn khác 88 - Khác (ghi rõ)</p>	<p>Thửa ruộng lớn nhất của Ông/Bà có được san phẳng bằng máy cân bằng đất lazer không?</p> <p>1 - Có 2 - Không 99 - Không biết</p>	<p>Ông/Bà có sử dụng ống nhựa để đo mực nước trên ruộng không?</p> <p>1 - Có 2 - Không 99 - Không biết</p> 	<p>Trong vụ Đông - Xuân vừa qua, mảnh ruộng chính của ông/bà đã cạn nước (không còn nước trên mặt ruộng) bao nhiêu lần?</p> <p>[ĐIỀU TRA VIÊN: cạn nước tức là không còn nước bao phủ mặt ruộng]</p>
GHI MÃ	GHI MÃ	GHI MÃ	SỐ LẦN CẠN NƯỚC

ID	5	6	7	8		
Dry down ID	<p>Đối với từng lần ruộng cạn nước (không còn nước trên mặt ruộng), lúa đang ở giai đoạn phát triển nào? [ĐIỀU TRA VIÊN: DÙNG HÌNH ẢNH HỖ TRỢ TRỰC QUAN VÀ ĐỂ HỘ CHỈ RÕ GIAI ĐOẠN PHÁT TRIỂN CỦA CÂY LÚA]</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> 0 - Giai đoạn 0 1 - Từ 0 đến 1 2 - Giai đoạn 1 3 - Từ 1 đến 2 4 - Giai đoạn 2 5 - Từ 2 đến 3 6 - Giai đoạn 3 7 - Từ 3 đến 4 8 - Giai đoạn 4 9 - Từ 4 đến 5 </td> <td style="width: 50%; vertical-align: top;"> 10 - Giai đoạn 5 11 - Từ 5 đến 6 12 - Giai đoạn 6 13 - Từ 6 đến 7 14 - Giai đoạn 7 15 - Từ 7 đến 8 16 - Giai đoạn 8 17 - Từ 8 đến 9 18 - Giai đoạn 9 </td> </tr> </table> <div style="text-align: center; margin-top: 10px;">  </div>	0 - Giai đoạn 0 1 - Từ 0 đến 1 2 - Giai đoạn 1 3 - Từ 1 đến 2 4 - Giai đoạn 2 5 - Từ 2 đến 3 6 - Giai đoạn 3 7 - Từ 3 đến 4 8 - Giai đoạn 4 9 - Từ 4 đến 5	10 - Giai đoạn 5 11 - Từ 5 đến 6 12 - Giai đoạn 6 13 - Từ 6 đến 7 14 - Giai đoạn 7 15 - Từ 7 đến 8 16 - Giai đoạn 8 17 - Từ 8 đến 9 18 - Giai đoạn 9	<p>Đối với lần cạn nước thứ [ID] Ruộng cạn nước trong bao nhiêu ngày?</p>	<p>Lý do nào dưới đây đã khiến ruộng cạn nước ở lần này? [ĐIỀU TRA VIÊN: ĐỌC TẤT CẢ CÁC LỰA CHỌN, CHỌN MỘT LỰA CHỌN PHÙ HỢP NHẤT]</p> <ol style="list-style-type: none"> 1 - Tôi chủ động tháo/xiết nước 2 - Hợp tác xã/ thủy nông tháo nước 3 - Hợp tác xã/ thủy nông ngừng bơm nước 4 - Hợp tác xã/ thủy nông bơm nhưng tôi không nhận được đủ nước 5 - Do ruộng gò/cao 6 - Do thời tiết hạn hán, nắng nóng 7 - Lý do khác 99 - Không biết 	<p>Giả sử ông/ bà bước lên mặt ruộng vào lúc ruộng khô nhất, chân ông/ bà lún xuống bao nhiêu cm? [ĐIỀU TRA VIÊN: ĐIỀN 99 NẾU KHÔNG BIẾT]</p>
0 - Giai đoạn 0 1 - Từ 0 đến 1 2 - Giai đoạn 1 3 - Từ 1 đến 2 4 - Giai đoạn 2 5 - Từ 2 đến 3 6 - Giai đoạn 3 7 - Từ 3 đến 4 8 - Giai đoạn 4 9 - Từ 4 đến 5	10 - Giai đoạn 5 11 - Từ 5 đến 6 12 - Giai đoạn 6 13 - Từ 6 đến 7 14 - Giai đoạn 7 15 - Từ 7 đến 8 16 - Giai đoạn 8 17 - Từ 8 đến 9 18 - Giai đoạn 9					
	GHI MÃ	SỐ NGÀY	GHI MÃ	SỐ CM		
	1					
	2					
	...					

4B1.1.A.6. Sau thu hoạch

1	2	3	4
<p>Ông/Bà bắt đầu thu Hoạch lúa khi nào?</p> <p>1 - 70-80% hạt lúa trên bông có màu vàng rơm 2 - 80-90% hạt lúa trên bông có màu vàng rơm 3 - 90-100% hạt lúa trên bông có màu vàng rơm</p>	<p>Ông/Bà thu hoạch lúa bằng phương pháp nào? [ĐIỀU TRA VIÊN: CHỌN TẤT CẢ CÁC ĐÁP ÁN PHÙ HỢP]</p> <p>1 - Sử dụng máy gặt đập liên hợp/máy gặt đóng bao 2 - Sử dụng máy cuộn rơm/ Người mua sử dụng máy cuộn rơm 3 - Gặt tay 88 - Phương pháp khác (ghi rõ):</p>	<p>Ông/Bà sử dụng phương pháp gặt này được bao nhiêu năm rồi?</p>	<p>Ông/Bà làm khô thóc bằng phương pháp nào?</p> <p>1 - Không sấy thóc, bán toàn bộ thóc tươi tại ruộng 2 - Để khô tại ruộng 3 - Phơi nắng trên đường hay trên sân nhà 4 - Phơi nắng có sử dụng bạt hoặc thảm lót 5 - Máy sấy lò lớn (sấy không khí nóng) 6 - Máy sấy trong nhà (sấy nhiệt độ thấp) 7 - Máy sấy bong bóng bằng năng lượng mặt trời 8 - Máy sấy nhưng không biết là máy gì 88 - Phương pháp khác</p> <p>NẾU 88 >>> PHẦN TIẾP THEO</p>
GHI MÃ	GHI MÃ	SỐ NĂM	GHI MÃ

5	6	7
<p>Ông/Bà sử dụng phương pháp phơi/ sấy này bao nhiêu năm rồi?</p>	<p>Ông/Bà bảo quản thóc như thế nào?</p> <p>1 - Đóng trong bao 2 - Trong thùng/bò lớn/ thùng tôn/ rương xi măng 3 - Bảo quản kín (Kén hoặc Túi kín khí) 88 - Phương pháp khác</p>	<p>Ông/Bà kiểm tra độ ẩm của thóc bằng cách nào?</p> <p>1 - Tôi không kiểm tra độ ẩm 2 - Tôi kiểm tra bằng phương pháp thủ công (tay, miệng) 3 - Tôi dùng máy kiểm tra độ ẩm 4 - Người mua kiểm tra độ ẩm</p>
SỐ NĂM	GHI MÃ	GHI MÃ

4B1.1.A.7. Thực hành quản lý sản xuất lúa

1	
[Ông/Bà] có áp dụng thực hành canh tác [...] trong vụ Đông Xuân đã thu hoạch vừa qua không? [ĐIỀU TRA VIÊN: TRÍCH DẪN TOÀN BỘ THỰC HÀNH QUẢN LÝ SẢN XUẤT LÚA DƯỚI ĐÂY]	
1 - Có 2 - Không 99 - Không biết	
	GHI MÃ
1	Một Phái, Năm Giảm (1P5G)
2	(1) Ướt khô xen kẽ; (2) Khô ngập luân phiên; (3) Nông Lộ Phơi; (4) Tươi lộ ruộng
3	Ba Giảm Ba Tăng (3R3G)
4	[1] Hệ thống thâm canh lúa cải tiến; (2) Hệ thống thâm canh lúa tổng hợp (SRI)

4B1.2. Cây lương thực, thực phẩm và cây hàng năm khác

	2	3	4	5	6	7	8	
	Hộ Ông/Bà đã thu hoạch những sản phẩm nào sau đây trong 12 tháng qua? HỎI CÂU 2 CHO CÁC LOẠI CÂY TRƯỚC KHI CHUYỂN SANG CÂU 4	Diện tích [...] do hộ Ông/Bà đã gieo trồng là bao nhiêu? [...]?	Hộ Ông/Bà đã thu hoạch bao nhiêu [...] trong 12 tháng qua?	Hộ Ông/Bà đã bán/đổi bao nhiêu trong tổng sản lượng [...] thu hoạch 12 tháng qua	Tổng số tiền hộ Ông/Bà đã thu được do bán/đổi [...] trong 12 tháng qua là bao nhiêu	Trị giá sản phẩm thu hoạch được trong 12 tháng qua?	Hộ Ông/Bà hiện có đang trồng [...] trên ít nhất một thửa ruộng/nương rẫy không? Có Không	
	Đánh dấu X nếu CÓ	X	M2	KG	KG	NGHÌN ĐỒNG	NGHÌN ĐỒNG	GHI MÃ
1	Ngô/Bắp							
2	Khoai lang							

3	Sắn/Khoai mì							>>> Module 4B1.2. A
4	Cây lương thực khác							
5	Khoai tây							>>> Module 4B1.2. B
6	Rau muống							
7	Su hào							
8	Bắp cải, súp lơ							
9	Rau cải các loại							
10	Đậu ăn quả tươi các loại							
11	Cà chua							
12	Cây gia vị							
13	Rau củ quả khác							
14	Cây hàng năm khác (đậu xanh, đen, đỏ, hoa, cây cảnh, cây thức ăn gia súc, cây làm phân xanh..)							

4B1.2. A.1. Bán và sử dụng sẵn

	1	2	3	4	5	6
Các loại sản phẩm từ sẵn Ông/Bà đã bán	<p>Ông/Bà bán [sản phẩm từ sẵn] này chủ yếu cho ai?</p> <p>1 - Thương lái địa phương đến mua tại vườn 2 - Thương lái địa phương đến mua tại chợ (hay tại điểm cân sẵn) 3 - Nhà máy chế biến tinh bột / Ethanol 4 - Trực tiếp cho người tiêu dùng 88 - Khác, nêu rõ:..... NẾU 4>>> CÂU 5</p>	<p>Ông/Bà có biết tên của huyện có trụ sở nhà máy sẵn sẽ nhận [sản phẩm từ sẵn] của hộ ông/bà không?</p> <p>[ĐIỀU TRA VIÊN: ĐIỀN 99 NẾU KHÔNG BIẾT]</p>	<p>Ông/Bà có biết tên của nhà máy sẽ nhận [sản phẩm từ sẵn] của hộ ông/bà không?</p> <p>[ĐIỀU TRA VIÊN: ĐIỀN 99 NẾU KHÔNG BIẾT]</p>	<p>Ông/Bà đã bán [sản phẩm từ sẵn] cho người mua này bao nhiêu năm rồi?</p>	<p>Tổng cộng, Ông/Bà phải chi trả bao nhiêu để chế biến thành sản phẩm từ sẵn này (tính bằng nghìn đồng)?</p>	<p>Tổng cộng, Ông/Bà thu được bao nhiêu tiền từ việc bán sản phẩm sẵn này?</p>
	GHI MÃ	GHI MÃ	GHI MÃ	SỐ NĂM	NGHÌN ĐỒNG	NGHÌN ĐỒNG
a. Củ tươi						
c. Lát khô						
b. Bột sẵn						
d. Không bán						

4B1.2.A.2. Liệt kê thửa/vườn và lấy mẫu lá sắn

1. Hộ này có được chọn để lấy mẫu lá sắn không?

- 1 Có (>>> Q2)
- 2 Không (>>>Q1a)

XIN VUI LÒNG LIỆT KÊ TẤT CẢ CÁC THỬA RUỘNG/NƯỞNG RẦY ÔNG/BÀ TRỒNG SẮN TRONG VỤ

MÃ THỬA RUỘNG	2 Tên thửa ruộng/nương rẫy	3 Diện tích của thửa/rẫy này tính bằng m2 là bao nhiêu?	4 Sắn/Khoai mỳ được trồng trên thửa/rẫy này vào tháng năm nào? 1 - Có (>>>Q5) 2 - Không (thửa tiếp theo)	5 Chọn thửa/vườn sắn CHỌN NGẪU NHIÊN 1 THỬA VÀ LƯU ID THỬA ĐƯỢC CHỌN Chọn ngẫu nhiên 1 thửa đã trồng sắn/khoai mỳ trên 1 tháng
	TÊN THỬA RUỘNG	M2	GHI MÃ	SỐ
1				
2				
...				

4B1.2.A.3. Lấy mẫu lá sắn

ĐIỀU TRA VIÊN: TIẾP TỤC HỎI CHO THỪA/VƯỜN ĐÃ ĐƯỢC CHỌN Ở PHẦN 4B1.2.1.2

1	2	3	4	5	6	7	8
IDHO [Ghi chú: Điền tự động]	ID của thừa/vư ờn được chọn để lấy mẫu lá sắn là gì? [Ghi chú: Điền tự động]	Có bao nhiều giống sắn/kho ai mỳ được trồng trên thừa ruộng này?	Tên của giống sắn chính được trồng trên thừa ruộng này? [CBKS: chỉ tiếp tục hỏi cho giống sắn chính]	Giống sắn chính được trồng trên thừa ruộng này là giống như thế nào? 1 - Truyền thống 2 - Cải tiến 99 - Không biết	Nguồn cây giống chính được trồng trên thừa/vườn này là gì? 1- Viện Nghiên cứu/Trường Đại học 2 - Cơ quan khuyến nông 3 - Nhà máy chế biến/thương lái 4 - Hợp tác xã/CLB hay Hội nông dân 5 - Cửa hàng tư nhân/người bán giống 6 - Người bà con/họ hàng/bạn bè 88 - Khác (ghi rõ)	Ông/Bà đã sử dụng lại giống này trong bao nhiều năm rồi? [CBKS: Nếu củ giống này mới được mua, điền 0]	Thừa ruộng/r ẫy này có được tươi không? 1 - Có 2 - Không
ID	ID	SỐ LƯỢNG	TÊN GIỐNG SẮN CHÍNH	GHI MÃ	GHI MÃ	SỐ NĂM	GHI MÃ

THỨ TỰ	9. Giống chính này có phải là giống:	
		Đánh dấu X nếu có
1	Cao sản (nhiều củ)	
2	Kháng bệnh khảm lá sần (CMD)	
3	Giàu tinh bột	
5	Cho thu hoạch sớm	
6	Chịu khô hạn	

10		11
NGÀY LẤY MẪU LÁ		BARCODE CỦA MẪU LÁ [CBKS: quét mã barcode]
NGÀY	THÁNG	BARCODE

4B1.2. B. Khoai tây

1	2	3
Tên của giống khoai tây chính hiện hộ Ông/Bà đang trồng là gì [ĐIỀU TRA VIÊN: CHỈ HỎI CHO GIỐNG KHOAI TÂY CHÍNH]	Nguồn cây giống khoai tây chính hộ đang trồng từ đâu? 1- Viện Nghiên cứu/Trường Đại học 2 - Cơ quan khuyến nông 3 - Nhà máy chế biến/thương lái 4 - Hợp tác xã/CLB hay Hội nông dân 5 - Cửa hàng tư nhân/người bán giống 6 - Người bà con/họ hàng/bạn bè 88 - Khác (ghi rõ)	Ông/Bà đã sử dụng lại giống này trong bao nhiêu năm rồi? [CBKS: Nếu củ giống này mới được mua, điền 0]
TÊN GIỐNG	GHI MÃ	SỐ NĂM

4B1.3. Cây công nghiệp hàng năm và lâu năm

THỨ TỰ	2	3	4	
	Hộ Ông/Bà đã thu hoạch những sản phẩm nào sau đây [ĐIỀU TRA VIÊN: Hỏi câu 2 cho các loại cây trước khi chuyển sang câu 4]	Hộ Ông/Bà đã thu hoạch bao nhiêu [...] trong 12 tháng qua	Trị giá sản phẩm thu hoạch được trong 12 tháng qua?	
	Đánh dấu X nếu CÓ	KG	NGHÌN ĐỒNG	
	Đậu tương/đậu nành			
	Lạc/Đậu phộng			
	Vừng/Mè			
	Mía			
	Thuốc lá, thuốc lào			
	Bông			
	Đay, gai			
	Cói			
	Cây CN hàng năm khác			
	Chè			
	Cà phê			>>>> Module 4B13A
	Cao su			
	Hồ tiêu			
	Dừa			
	Dâu tằm			
	Điều/đào lộn hột			
	Cây CN lâu năm khác			

4B1.3.A. Tưới tiêu cho cây cà phê

Điều TRA VIÊN: Hỏi về thực hành nước trong mùa khô vừa qua (từ tháng 1 đến tháng 4 năm 2022 hoặc 2023)

1	2	3	4
Trong mùa khô vừa qua, Ông/Bà sử dụng phương pháp tưới nào cho cây cà phê? 1 - Tưới gốc/tưới dí 2 - Tưới phun mưa 3 - Tưới phun mưa dưới gốc 4 - Tưới nhỏ mịn 5 - Phương pháp khác	Trong mùa khô vừa qua, Ông/Bà đòi dào nước cho cà phê?	Trung bình mỗi thời gian, Ông/Bà sung bao nhiêu lít cho một gốc?	Tại sao Ông/Bà biết lượng nước bổ sung cho một gốc là [Q3] lít? 1 - Tôi sử dụng đồng hồ đo lưu lượng gắn ở hệ thống ống 2 - Tôi ước lượng qua bồn cà phê xung quanh gốc 3 - Tôi biết thời gian để đạt được lượng nước 4 - Tôi không biết chính xác 5 - Khác
GHI MÃ	SỐ LẦN	SỐ LÍT	GHI MÃ

4B5. Thủy sản

1a. Trong 12 tháng qua, có ai trong hộ Ông/Bà nuôi, ương giống cá, tôm, thủy sản khác hoặc đánh bắt thủy hải sản ở hồ, ao, sông, suối, biển không?

- Có (>>> Q2)

- Không (Next module)

1b. Có phải do thiên tai, dịch bệnh, môi trường ô nhiễm ...làm thiệt hại sản xuất hay không?

- Có (>>> Q4B5T2)

- Không (Module 4C)

O R D E R	2	3	5
	Hộ Ông/Bà đã thu các sản phẩm nào dưới đây?	Tổng sản lượng thu được trong 12 tháng qua?	TỔNG GIÁ TRỊ SẢN PHẨM THU ĐƯỢC TRONG 12 THÁNG QUA
	Đánh dấu X nếu CÓ	X	KG
1	Nuôi trồng thủy sản		NGHÌN ĐỒNG
1.1	Cá		
	Nếu nuôi trồng cá, hỏi câu dưới đây:		
1.1 b	Cá rô phi		
1.2	Tôm		
1.3	Cá giống, tôm giống		
1.4	Thủy sản khác (ghi rõ.....)		
2	Đánh bắt thủy sản		
2.1	Cá		
2.2	Tôm		
2.3	Thủy sản khác (ghi rõ.....)		

4B5T2. Tổng số tiền hộ gia đình Ông/Bà được đền bù, hỗ trợ thiệt hại về nuôi trồng, đánh bắt thủy sản trong 12 tháng qua là bao nhiêu? (không kể các khoản bồi thường thiệt hại về người, tài sản cố định như tàu/thuyền,...)

NGHÌN ĐỒNG

4B5T. Cộng câu 5 + 4B5T2 (thu thủy sản)

4B5.1.A. Cá rô phi

1	2	3	4	5
Ông/Bà bắt đầu nuôi trồng cá rô phi vào năm nào?	Kể từ năm đó, có phải năm nào hộ Ông/Bà cũng nuôi cá không? 1 - Có >>> CÂU 4 2 - Không	Kể từ năm đó, có bao nhiêu năm hộ Ông/Bà KHÔNG nuôi cá?	Hộ Ông/Bà có mua cá rô phi giống trong 12 tháng qua không? 1 - Có 2 - Không >>> PHẦN TIẾP THEO	Hộ Ông/Bà thả cá trong bao nhiêu cơ sở nuôi cá (ao/hồ/lồng/bè/kênh/mương/ruộng)?
NĂM (4 CHỮ SỐ)	GHI MÃ	SỐ NĂM	GHI MÃ	SỐ LƯỢNG

[ĐIỀU TRA VIÊN: NẾU CÓ TRÊN MỘT CƠ SỞ NUÔI CÁ, LIỆT KÊ CÁC CƠ SỞ THEO THỨ TỰ DIỆN TÍCH TỪ LỚN ĐẾN BÉ]

CƠ SỞ VÀ KINH NGHIỆM NUÔI TRỒNG CÁ

6	7	8	9	10	11
Loại cơ sở nuôi trồng cá: 1 - Ao/Hồ 2 - Lồng/Bè 3 - Kênh mương/Ruộng g 88 - Khác	Diện tích bình bằng của cơ sở này là bao nhiêu ?	Độ sâu trung bình của nước của cơ sở này (tính bằng mét) là bao nhiêu?	Nguồn nước của cơ sở là gì? 1 - Nước mặt (sông, hồ, lạch, suối...) 2 - Nước ngầm (giếng đào, giếng khoan ...) 3. Kênh thủy lợi 4. Đập 88 -Khác (ghi rõ)	Hiện Ông/Bà đang thả những loại cá nào trong cơ sở này? 1. Hiện không thả cá trong Ao/Lồng/Bè này 2 - Cá rô phi và các loài cá khác 3 - Chỉ thả cá rô phi 4 - Chỉ thả các loài cá khác	Ông/Bà có áp dụng thực hành nông nghiệp - thủy sản tổng hợp như mô hình cá - lúa trong cơ sở này không? 1 - Có 2 - Không [ĐIỀU TRA VIÊN: Thực hành nông nghiệp - thủy sản tổng hợp là việc nuôi cá đồng thời hoặc nối tiếp sau vụ lúa]
GHI MÃ	M2	M	GHI MÃ	GHI MÃ	GHI MÃ

Bây giờ, tôi muốn trao đổi với Ông/Bà về hoạt động nuôi trồng cá rô phi của Ông/Bà trong 12 tháng qua.


NGUỒN GỐC



12	13	14	15	16	17
Bây giờ, tôi muốn trao đổi với Ông/Bà về hoạt động nuôi trồng cá rô phi của Ông/Bà trong 12 tháng qua.	Bây giờ, tôi muốn trao đổi với Ông/Bà về hoạt động nuôi trồng cá rô phi của Ông/Bà trong 12 tháng qua.	Bây giờ, tôi muốn trao đổi với Ông/Bà về hoạt động nuôi trồng cá rô phi của Ông/Bà trong 12 tháng qua.	Bây giờ, tôi muốn trao đổi với Ông/Bà về hoạt động nuôi trồng cá rô phi của Ông/Bà trong 12 tháng qua.	Bây giờ, tôi muốn trao đổi với Ông/Bà về hoạt động nuôi trồng cá rô phi của Ông/Bà trong 12 tháng qua.	Bây giờ, tôi muốn trao đổi với Ông/Bà về hoạt động nuôi trồng cá rô phi của Ông/Bà trong 12 tháng qua.
NGÀY	GHI MÃ	TÊN XÃ - HUYỆN	GHI MÃ	KM	SỐ NĂM



DÒNG CÁ RÔ PHI					THU HOẠCH		
18	19	20	21	22	23	24	25
Tên của dòng cá rô phi Ông/Bà đã mua là gì?	Ông/Bà đã thả bao nhiêu con cá rô phi giống?	Có bao nhiêu con là cá rô phi đơn tính đực?	Chiều dài trung bình của mỗi con giống lúc thả là bao nhiêu cm?	Tổng số tiền Ông/Bà đã trả khi mua toàn bộ cá giống này là bao nhiêu?	Ông/Bà đã hoàn thành thu hoạch cá khi nào?	Cá rô phi của Ông/Bà được bán như thế nào? 1 - Cá sống 2 - Cá khô 3 - Đã chế biến 88 - Khác	Ông/Bà bán chủ yếu cho ai? 1 - Tư thương 2 - Người tiêu dùng ở nông thôn 3 - Người tiêu dùng ở thành thị 4 - Nhà máy chế biến 88 - Khác
KM	SỐ NĂM	TÊN DÒNG CÁ	SỐ LƯỢNG	SỐ LƯỢNG	CM	VND	NGÀY THÁNG


Modules Integrated into VHLSS 2024

4.1. CƠ GIỚI HÓA

ID	1. Trong 12 tháng qua, máy móc nào dưới đây được người dân ở địa phương sử dụng trong bất kì vụ lúa nào không? Có.....1 Không.....2 Không biết.....3		2. Nếu có, xin cho biết tỷ lệ phần trăm hộ nông nghiệp sử dụng loại [MÁY] này?'	3. Trong vòng 12 tháng qua, có dịch vụ cho thuê loại [MÁY] đó ở xã không? Có1 Không2 ---> Dòng tiếp theo Không biết.....3 ---> Dòng tiếp theo	4. Nếu có, ai là người cho thuê loại [MÁY] đó? (có thể chọn nhiều phương án) Cá nhân/Hộ gia đình.....1 Hợp tác xã..... 3 Hội/Nhóm nông dân.....4 Doanh nghiệp.....5 Khác (ghi rõ).....6
	Loại máy		ĐIỀN SỐ	ĐIỀN MÃ	ĐIỀN MÃ
1	Má gieo hạt (máy sạ lúa) %	[...]	[...]	

ID	<p>1. Trong 12 tháng qua, máy móc nào dưới đây được người dân ở địa phương sử dụng trong bất kì vụ lúa nào không?</p> <p>Có.....1 Không.....2 Không biết.....3</p>		<p>2. Nếu có, xin cho biết tỷ lệ phần trăm hộ nông nghiệp sử dụng loại [MÁY] này?</p>	<p>3. Trong vòng 12 tháng qua, có dịch vụ cho thuê loại [MÁY] đó ở xã không?</p> <p>Có1 Không2 ---> Dòng tiếp theo Không biết.....3 ---> Dòng tiếp theo</p>	<p>4. Nếu có, ai là người cho thuê loại [MÁY] đó? (có thể chọn nhiều phương án)</p> <p>Cá nhân/Hộ gia đình.....1 Hợp tác xã..... 3 Hội/Nhóm nông dân.....4 Doanh nghiệp.....5 Khác (ghi rõ).....6</p>
2	<p>Máy thổi hạt lép</p>		<p>....%</p>	<p>[...]</p>	<p>[...]</p>
3	<p>Máy gặt đập liên hợp mini</p>		<p>....%</p>	<p>[...]</p>	<p>[...]</p>

ID	<p>1. Trong 12 tháng qua, máy móc nào dưới đây được người dân ở địa phương sử dụng trong bất kì vụ lúa nào không?</p> <p>Có.....1 Không.....2 Không biết.....3</p>		<p>2. Nếu có, xin cho biết tỷ lệ phần trăm hộ nông nghiệp sử dụng loại [MÁY] này?'</p>	<p>3. Trong vòng 12 tháng qua, có dịch vụ cho thuê loại [MÁY] đó ở xã không?</p> <p>Có1 Không2 ---> Dòng tiếp theo Không biết.....3 ---> Dòng tiếp theo</p>	<p>4. Nếu có, ai là người cho thuê loại [MÁY] đó? (có thể chọn nhiều phương án)</p> <p>Cá nhân/Hộ gia đình.....1 Hợp tác xã..... 3 Hội/Nhóm nông dân.....4 Doanh nghiệp.....5 Khác (ghi rõ).....6</p>
4	<p>Máy gặt đập liên hợp</p>		<p>....%</p>	<p>[....]</p>	<p>[....]</p>
5	<p>Máy cuộn rơm</p>		<p>....%</p>	<p>[....]</p>	<p>[....]</p>

ID	1. Trong 12 tháng qua, máy móc nào dưới đây được người dân ở địa phương sử dụng trong bất kì vụ lúa nào không? Có.....1 Không.....2 Không biết.....3		2. Nếu có, xin cho biết tỷ lệ phần trăm hộ nông nghiệp sử dụng loại [MÁY] này?'	3. Trong vòng 12 tháng qua, có dịch vụ cho thuê loại [MÁY] đó ở xã không? Có1 Không2 ---> Dòng tiếp theo Không biết.....3 ---> Dòng tiếp theo	4. Nếu có, ai là người cho thuê loại [MÁY] đó? (có thể chọn nhiều phương án) Cá nhân/Hộ gia đình.....1 Hợp tác xã..... 3 Hội/Nhóm nông dân.....4 Doanh nghiệp.....5 Khác (ghi rõ).....6
6	Máy Sấy Giá Rẻ	%	[....]	[....]
7	Khác (ghi rõ)%	[....]	[....]

5. Trong vòng 5 năm trở lại đây, có người dân nào ở địa phương sử dụng máy cân bằng đất lazer để làm đất không?

Có.....1
 Không.....2
 Không biết.....3



[....]

6. Trong vòng 12 tháng qua có dịch vụ cho thuê máy cân bằng đất lazer ở địa phương không?

Có1
 Không.....2 ---> Chuyển sang phần sau
 Không biết3 ---> Chuyển sang phần sau

[....]

7. Nếu có, có thể thuê máy cân bằng đất lazer từ ai? (có thể chọn nhiều phương án)

Cá nhân/Hộ gia đình.....1
 Hợp tác xã..... 3
 Hội/Nhóm nông dân.....4
 Doanh nghiệp.....5
 Khác (ghi rõ).....6

[....]

4.2. KẾ HOẠCH SẢN XUẤT NÔNG NGHIỆP

Người trả lời = Cán bộ phụ trách nông nghiệp cấp xã, Ban chủ nhiệm hợp tác xã

<p>1. Trong vòng 12 tháng qua, xã có kế hoạch sản xuất lúa không? (ví dụ: Kế hoạch trồng trọt, kế hoạch mùa vụ, ...)</p> <p>Có.....1 Không.....2 ---> Câu 3 Không biết....3 ---> Câu 3</p>	<p>2. Kế hoạch sản xuất lúa được xây dựng ở cấp hành chính nào?</p> <p>Cấp tỉnh.....1 Cấp huyện2 Cấp xã3</p>	<p>3. Trong vòng 12 tháng qua, xã có xây dựng lịch gieo cấy/ thời vụ gieo sạ/ lịch xuống giống không?</p> <p>Có, mỗi mùa vụ...1 Có, mỗi năm một lần2 Không.....3</p>	<p>4. Trong vòng 12 tháng qua, xã có xây dựng lịch lấy nước cho sản xuất lúa không?</p> <p>Có.....1 Không.....2 Không biết....3</p>
[...]	[...]	[...]	[...]

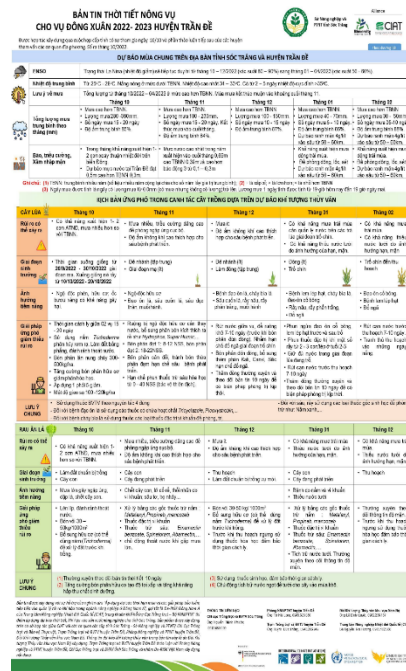
Nếu Câu 1 = 2 hoặc 3 VÀ Câu 3 = 3 VÀ Câu 4 = 2 hoặc 3 >> Chuyển sang câu 13

<p>5. Trong kế hoạch sản xuất lúa gần nhất có đề cập đến thời tiết năm đó là bình thường hay cực đoan?</p> <p>Năm bình thường.....1 Năm thời tiết cực đoan.....2 Không biết....3</p>	<p>6. Xã có nằm trong khu vực được tỉnh xác định có khả năng cao bị hạn hán không?</p> <p>Có.....1 Không.....2 ---> Câu 8 Không biết....3 ---> Câu 8</p>	<p>7. Theo Ông/Bà, tỷ lệ diện tích sản xuất nông nghiệp của xã có khả năng cao bị hạn hán là bao nhiêu?</p> <p>< 5%.....1 5 - 15%....2 15-30%....3 30-45%....4 45-60%....5 60-75%....6 > 75%.....7 Không biết8</p>	<p>8. Xã có nằm trong khu vực được tỉnh xác định có khả năng cao bị lụt không?</p> <p>Có.....1 Không.....2 ---> Câu 10 Không biết.3 ---> Câu 10</p>	<p>9. Theo Ông/Bà, tỷ lệ diện tích sản xuất nông nghiệp của xã có khả năng cao bị lụt là bao nhiêu?</p> <p>< 5%.....1 5 - 15%....2 15-30%....3 30-45%....4 45-60%....5 60-75%....6 > 75%.....7 Không biết8</p>
[...]	[...]	[...]	[...]	[...]

10. Trong vòng 12 tháng qua, dựa vào kế hoạch sản xuất lúa, xã có đưa ra các khuyến nghị sau đây cho các hộ trồng lúa trên địa bàn không? Có.....1 Không..... 2		11. Nếu có, khuyến nghị được đưa ra vào mùa vụ nào? Có → Q12				12. Nếu có, khuyến nghị này có phải được đưa ra để giảm thiểu ảnh hưởng của thời tiết cực đoan (hạn hán, ngập lụt, xâm nhập mặn) đến sản xuất lúa không?			
		Đông- Xuân	Hè-Thu	Thu- Đông	Mùa	Đông- Xuân	Hè-Thu	Thu- Đông	Mùa
Không canh tác lúa trong một vụ	[...] NẾU CHỌN 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Chuyển từ trồng lúa sang nông sản khác	[...] NẾU CHỌN 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Thay đổi ngày gieo cấy/gieo sạ/xuống giống	[...] NẾU CHỌN 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Khuyến nghị giống lúa để gieo trồng	[...] NẾU CHỌN 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Chuyển sang giống lúa ngắn ngày hơn	[...] NẾU CHỌN 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Thay đổi lịch tưới tiêu	[...] NẾU CHỌN 1 >>>	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]

Chỉ dành cho các tỉnh Đồng bằng sông Cửu Long (13 tỉnh)

<p>13. Hộ trồng lúa trong xã có được phổ biến về Bản tin Thời tiết Nông vụ không?</p> <p>Có.....1 Không.....2 -----> KẾT THÚC Module 4.2 Không biết.....3 -----> KẾT THÚC Module 4.2</p>	<p>14. Nếu có, Bản tin Thời tiết Nông vụ được phổ biến với tần suất như thế nào? (có thể chọn nhiều phương án)</p> <p>Theo vụ mùa.....1 Theo tháng2 10 ngày...3 Khác (ghi rõ)4</p>	<p>15. Bản tin Thời tiết Nông vụ bao gồm những cây trồng nào?</p> <p>[CÓ THỂ CHỌN NHIỀU ĐÁP ÁN]</p> <p>Lúa...1 Rau ăn lá...2 Trái cây...3 Khác (Ghi rõ:___).....4</p>
<p>[....]</p>	<p>[....]</p>	<p>[....]</p>



Ví dụ về Bản tin Thời tiết Nông vụ theo vụ mùa

4.3. CHI TRẢ DỊCH VỤ MÔI TRƯỜNG RỪNG

Người trả lời: Phó Chủ tịch phụ trách Nông/Lâm nghiệp, Cán bộ phòng Nông/Lâm nghiệp

<p>1. Trong năm 2023, xã của Ông/Bà có được chi trả tiền Dịch vụ môi trường rừng không?</p> <p>Có1 Không2 >> Kết thúc Module 4.3</p>	<p>2. Trong năm 2022, diện tích cung ứng Dịch vụ môi trường rừng của cả xã là bao nhiêu hecta?</p> <p>(Nếu diện tích thay đổi trong năm, vui lòng cho biết diện tích tối đa được chi trả)</p>	<p>3. Xã của Ông/Bà được chi trả Dịch vụ môi trường rừng từ năm nào?</p>	<p>4. Trong năm 2022, những nhà máy/công ty/cơ sở sản xuất nào sử dụng Dịch vụ môi trường rừng do xã cung ứng? (Có thể chọn nhiều phương án)</p> <p>Nhà máy thủy điện ...1 Nhà máy nước sạch.....2 Công ty du lịch sinh thái...3 Cơ sở sản xuất công nghiệp...4 Khác (ghi rõ)....5</p>
MÃ	HÉC-TA	NĂM (YYYY)	MÃ
[....]	[.....]	[.....]	[....]

THÔNG TIN VỀ BÊN CUNG ỨNG DỊCH VỤ MÔI TRƯỜNG RỪNG TẠI XÃ NĂM 2023						
(Đối với từng nhóm đối tượng nhận chi trả Dịch vụ môi trường rừng tại xã của Ông/Bà trong năm 2023, vui lòng cho chúng tôi biết số lượng, diện tích chi trả Dịch vụ môi trường rừng mà họ quản lý, và đơn giá chi trả Dịch vụ môi trường rừng)						
Đối tượng nhận chi trả Dịch vụ môi trường rừng	5. Xã của Ông/Bà có đối tượng này không? Có.....1 Không2		6. Nếu có, số lượng đối tượng nhận chi trả Dịch vụ môi trường rừng trong nhóm này?	7. Nếu có, tổng diện tích nhận chi trả Dịch vụ môi trường rừng của nhóm này	8. Nếu có, đơn giá chi trả mà đối tượng này được nhận trong năm 2023 (Nếu không nhận chi trả trong năm 2023, ghi số 0)	
	MÃ		SỐ ĐỐI TƯỢNG NHẬN CHI TRẢ	HÉC-TA	NGHÌN ĐỒNG/HA	
Chủ rừng tổ chức	1. BQL rừng phòng hộ, rừng đặc dụng (Vườn Quốc gia, Khu Bảo tồn Thiên nhiên, Đồn Biên phòng,...)	[...]	NẾU CHỌN 1 >>>	[.....]	[.....]	[.....]
	2. Công ty lâm nghiệp	[...]	NẾU CHỌN 1 >>>	[.....]	[.....]	[.....]
UBND xã và các tổ chức được giao khoán bảo vệ rừng	3. UBND xã và các tổ chức chính trị-xã hội (Hội Phụ nữ, Hội Nông dân, Đoàn Thanh niên, Hội Cựu chiến binh,...)	[...]	NẾU CHỌN 1 >>>	[.....]	[.....]	[.....]
	4. Cộng đồng hoặc nhóm hộ gia đình nhận khoán bảo vệ	[...]	NẾU CHỌN 1 >>>	[.....]	[.....]	[.....]

	rừng (tiền chi trả DVMTR do đại diện thôn quản lý)					
Hộ gia đình	5. Hộ gia đình nhận tiền chi trả Dịch vụ môi trường rừng trực tiếp	[...]	NẾU CHỌN 1 >>>	[.....]	[.....]	[.....]

9. Trong năm 2023, diện tích mỗi loại rừng nhận chi trả Dịch vụ môi trường rừng tại xã của Ông/Bà là bao nhiêu? <i>(Nếu không có loại rừng nào thì ghi 0)</i>		9B. Nếu có rừng sản xuất, vui lòng liệt kê 3 loại cây trồng được trồng nhiều nhất? <i>(Ghi mã của 3 loại cây trồng)</i>	
HÉC-TA		MÃ	
1. Rừng phòng hộ	[.....]	1. Cây keo	[...] [...] [...]
2. Rừng đặc dụng	[.....]	2. Cây bạch đàn	
3. Rừng sản xuất	[.....]	3. Cây mắc-ca	
		4. Cây thông	
		5. Cây giổi	
		6. Cây lim	
		7. Cây quế	
		8. Cây hồi	
		9. Cây trà	
		10. Cây tre/luồng/nứa	
		11. Khác (ghi rõ)	

CÁC KHOẢN HỖ TRỢ BẢO VỆ PHÁT TRIỂN RỪNG KHÁC TRONG NĂM 2023					
Nguồn tiền	10. Có bất kỳ hộ gia đình hoặc tổ chức trên địa bàn xã của Ông/Bà được nhận các khoản hỗ trợ khác để bảo vệ và phát triển rừng trong năm 2023 không? Có.....1 Không.....2	11. Định mức hỗ trợ			12. Tổng số tiền nhận được
	MÃ			ĐỊNH MỨC (nghìn đồng)	SỐ LƯỢNG (héc-ta hoặc thôn/bản)
1. Khoản bảo vệ rừng		NẾU CHỌN 1 >>>	[...] nghìn đồng/héc-ta	[...] héc-ta	
2. Hỗ trợ cộng đồng dân cư vùng đệm các khu rừng đặc dụng		NẾU CHỌN 1 >>>	[...] nghìn đồng/thôn,bản	[...] thôn/bản	
3. Hỗ trợ khoanh nuôi xúc tiến tái sinh rừng		NẾU CHỌN 1 >>>	[...] nghìn đồng/héc-ta	[...] héc-ta	
4. Hỗ trợ cấp Chứng chỉ Quản lý rừng bền vững		NẾU CHỌN 1 >>>	[...] nghìn đồng/héc-ta	[...] héc-ta	
5. Hỗ trợ thực hiện trồng cây phân tán		NẾU CHỌN 1 >>>	[...] nghìn đồng/héc-ta	[...] héc-ta	
6. Hỗ trợ bảo vệ rừng sản xuất là rừng tự nhiên trong thời gian đóng cửa rừng		NẾU CHỌN 1 >>>	[...] nghìn đồng/héc-ta	[...] héc-ta	
7. Bảo vệ rừng tại cơ sở (cấp xã)		NẾU CHỌN 1 >>>	[...] nghìn đồng/héc-ta	[...] héc-ta	

8. Khác (ghi rõ)		NẾU CHỌN 1 >>>	specify	specify	
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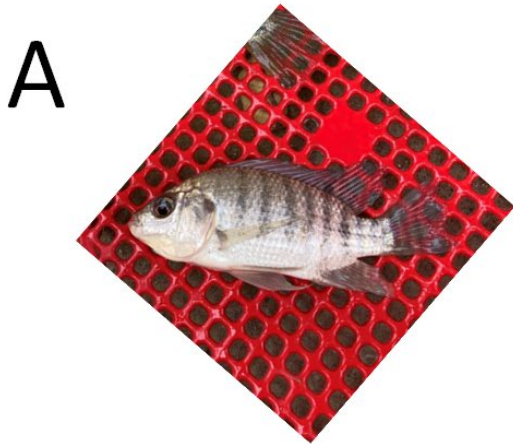
Annex C. GIFT-Derived Strains Visual Aid and Fin-Clipping

Fin Clip Sampling Procedure

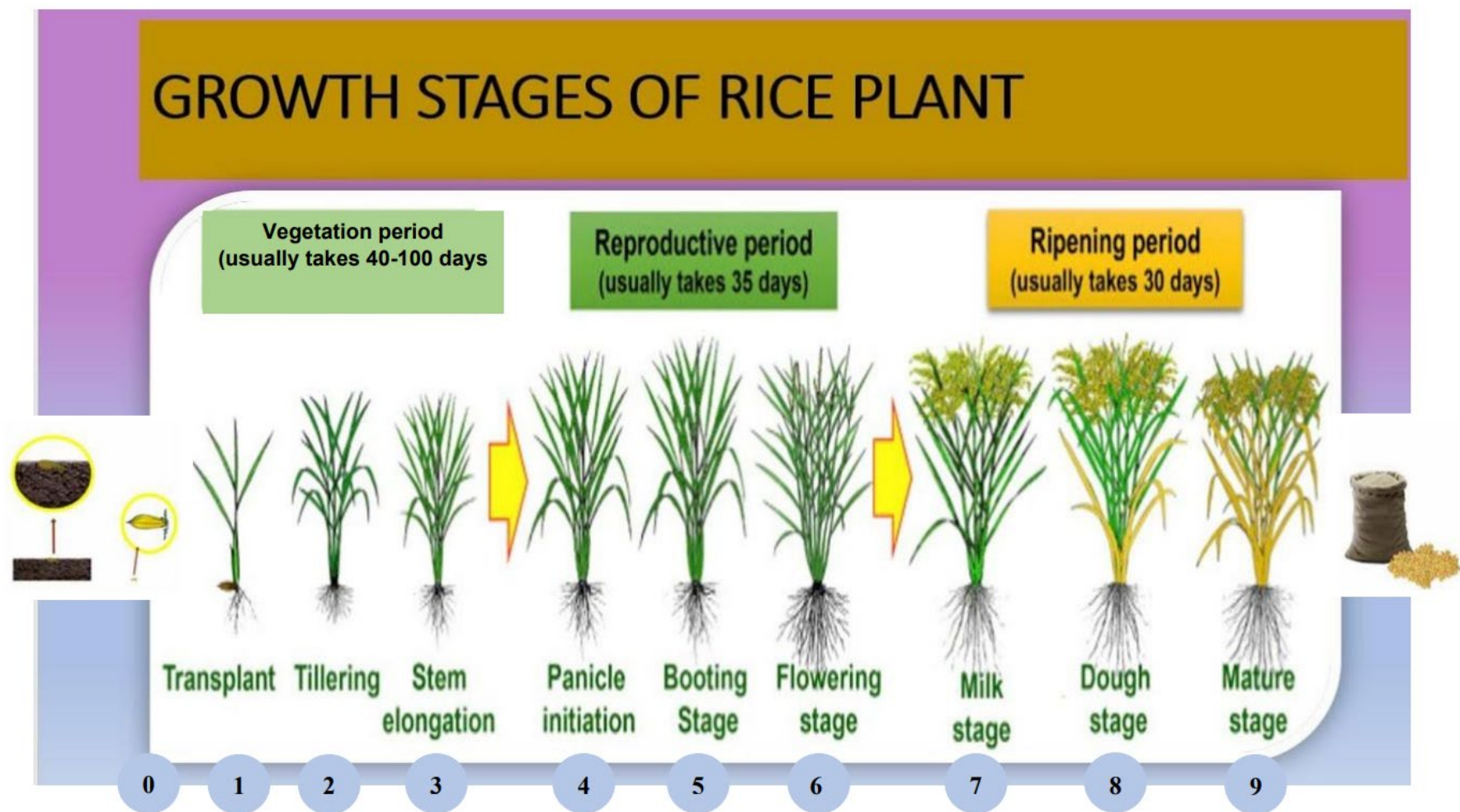
The selected tilapia fish will be fin clipped using the following procedure:

1. Prepare material: disposable gloves, hole puncher, tube sample, disposable toothpick, alcohol pads
2. Put on disposable gloves and take the 2 mm hole puncher
3. Only punch the soft parts of the fin, avoiding hard parts. Avoid taking fin tissue from damaged fins.
4. Use the hole punch upside down, opposite to what you would do when punching a hole on a paper so the fin tissue stays on the hole punch
5. Hold the fish in one hand and take the first hole punch from the pelvic fin with the other hand. A sound typically indicates the samples has been extracted from the fin
6. Carefully locate the sample (it could be inside the hole puncher, or still on the fin) and use a toothpick to retrieve it.
7. Place each sample in a piece of paper before placing them in the sampling tube
8. Repeat steps 5, 6 7 to obtain **three samples**
9. Ask someone to open and hold the tube for you
10. The 3 collected fin clips will be placed in a 1.5ml sampling tube that will be closed. These tubes contain a alcohol solution to preserve the quality of the sample after collection.
11. The fish can be put back in its environment after the sample is taken. Tilapia fin tissue taken from the fish will grow back (regenerate) within 2 months.
12. Using an alcohol pad, the fish fin should be disinfected
13. Using an alcohol pad, hole punchers should be cleaned. Use the toothpick to completely clean the inside of the hole puncher
14. The barcode sample will be scanned with the CAPI application.
15. Make sure the barcode is readable. If not, write down the sample number with a marker on the top of the sample
16. Collected samples can be placed in a zippable bag.
17. Write the name of the province on the bag that contains all collected samples

Visual Aid Distinguishing Tilapia (A) from Climbing Perches (B)



Annex D. Visual Aid used to measure the timing of 3R3G/1M5R agricultural practices



Annex E. Reference Libraries

Reference Library Used for Rice DNA Varietal Identification

VARIETY NAME	ORIGIN
1548	PRC RL2
AS996	PRC RL1
AYT77	PRC RL1
BACHUONG_G_S1	Seed purchases
BC15	PRC RL1
BM9855	PRC RL1
BT7	PRC RL2
CH5	PRC RL1
CL9	PRC RL1
CR203	PRC RL1
DAITHOM8_S_S1	Seed purchases
DS1_G_S1	Seed purchases
DT10	PRC RL2
DV108_G_S1	Seed purchases
HL3-SUB1	AGI
HN6_G_S1	Seed purchases
HOMMALI_G_S1	Seed purchases
HT1_S_S1	Seed purchases
HT18_G_S1	Seed purchases
HUONGTHOM1	Seed purchases
HUONGUU98_S_S1	Seed purchases
HYT116	FCRI
HYT124	FCRI
IR1348-9	PRC RL1
IR17494	PRC RL1
IR1820	PRC RL1
IR19660	CLRRI RL2
IR36	CLRRI RL2
IR42	PRC RL2
IR50404	PRC RL1
IR64	PRC RL1
IRRI 352	PRC RL1
J02_S_S1	Seed purchases
JASMINE 85	PRC RL1
KD18	PRC RL2
KOSHIHIKARI_G_S1	Seed purchases

VARIETY NAME	ORIGIN
LH12	PRC RL1
LTH31	FCRI
ML 202	Binh Thuan Seed co
MTL 250	PRC RL1
N97	PRC RL2
N98	PRC RL1
NANG HOA	PRC RL2
NANG THOM CHO DAO	PRC RL2
NẾP - AG	PRC RL2
NEP 98	FCRI
NN 4B	PRC RL1
NX30	PRC RL2
OM10252	CLRRI RL1
OM10424	CLRRI RL2
OM10636	CLRRI RL1
OM11735	CLRRI RL2
OM1348	PRC RL1
OM1348-9	PRC RL2
OM1350	PRC RL1
OM1351	CLRRI RL2
OM1352	CLRRI RL2
OM1352-5	PRC RL2
OM1490	PRC RL1
OM18	CLRRI RL2
OM20	CLRRI RL2
OM232	CLRRI RL2
OM2395	CLRRI RL2
OM2395-165	CLRRI RL1
OM251	PRC RL1
OM25117	CLRRI RL1
OM2518	PRC RL1
OM2718	CLRRI RL2
OM344	CLRRI RL2
OM3536	PRC RL1
OM355	CLRRI RL2
OM3673	CLRRI RL2
OM368	CLRRI RL2
OM375	CLRRI RL2
OM380	CLRRI RL2
OM384	CLRRI RL2
OM402	CLRRI RL2
OM406	CLRRI RL2

VARIETY NAME	ORIGIN
OM4101	CLRRI RL1
OM4218	PRC RL1
OM429	CLRRI RL2
OM4498	CLRRI RL1
OM461	CLRRI RL2
OM4900	PRC RL1
OM5239	PRC RL1
OM5451	PRC RL1
OM5464	CLRRI RL1
OM5472	CLRRI RL1
OM5629	CLRRI RL1
OM576	PRC RL1
OM5954	CLRRI RL1
OM5981	CLRRI RL1
OM6162	PRC RL1
OM6377	CLRRI RL1
OM6600	CLRRI RL1
OM6976	PRC RL1
OM73417	CLRRI RL1
OM8017	CLRRI RL1
OM8108	PRC RL1
OM9582	CLRRI RL2
OM9915	CLRRI RL2
OMCS2000	CLRRI RL1
P 290	PRC RL1
P6	PRC RL1
PC6	FCRI
Q5	PRC RL2
RVT_G_S1	Seed purchases
SH14	PRC RL1
SHPT3-SUB1	AGI
ST21_G_S1	Seed purchases
ST24_G_S1	Seed purchases
ST25_S_S1	Seed purchases
TBR225	Seed purchases
THAIXUYEN111_S_S1	Seed purchases
THIÊNƯU8_S_S1	Seed purchases
TN13-5	PRC RL1
VẬT TƯ NA2	Nghe An Plant Seed
VN10	PRC RL2
VND 95-20	PRC RL1
VNR20_S_S1	Seed purchases
VT404_G_S1	Seed purchases

VARIETY NAME	ORIGIN
XI 23	PRC RL1
GAONEP_G_S1	Seed purchases
JAPO_G_S1	Seed purchases
SENGCU_G_S1	Seed purchases
SONLAM1_S_S1	Seed purchases
TAMHAIHAU_G_S1	Seed purchases
TAMTHAI_G_S1	Seed purchases
AS996	CLRRI RL1
AS996	CLRRI RL2
AYT77	PRC RL2
BC15	Seed purchases
BC15_S_S1	Seed purchases
BC15_S_S2	Seed purchases
BM9855	PRC RL2
BT7	AGI
CH5	PRC RL2
CL9	PRC RL2
CR203	PRC RL2
DAITHOM8_S_S2	Seed purchases
DAITHOM8_S_S3	Seed purchases
DS1_G_S2	Seed purchases
DS1_G_S3	Seed purchases
DV108_G_S2	Seed purchases
DV108_G_S3	Seed purchases
HN6_G_S2	Seed purchases
HN6_G_S3	Seed purchases
HOMMALI_G_S2	Seed purchases
HOMMALI_G_S3	Seed purchases
HT1_S_S2	Seed purchases
HT18_G_S2	Seed purchases
HT18-G-S3	Seed purchases
IR504_G_S1	Seed purchases
IR504_S_S1	Seed purchases
IR504_S_S2	Seed purchases
IR64	CLRRI RL2
IR64_G_S1	Seed purchases
IR64_G_S2	Seed purchases
IR64_G_S3	Seed purchases
J02_S_S2	Seed purchases
J02_S_S3	Seed purchases
JAPO_G_S2	Seed purchases
JASMINE_G_S1	Seed purchases
JASMINE_G_S2	Seed purchases

VARIETY NAME	ORIGIN
JASMINE_G_S3	Seed purchases
KD18_S_S1	Seed purchases
KD18_S_S2	Seed purchases
KD18_S_S3	Seed purchases
LH12	PRC RL2
N97_S_S1	Seed purchases
N98	PRC RL2
NX30 (1)	PRC RL1
NX30 (2)	PRC RL1
OM10636	CLRRI RL2
OM1348	CLRRI RL1
OM1348	CLRRI RL2
OM1350	CLRRI RL1
OM1350	CLRRI RL2
OM1352-5	CLRRI RL1
OM1490	CLRRI RL1
OM18_G_S1	Seed purchases
OM18_G_S2	Seed purchases
OM18_G_S3	Seed purchases
OM3536	CLRRI RL1
OM4101	CLRRI RL2
OM4218	CLRRI RL1
OM4218	CLRRI RL2
OM4498	CLRRI RL2
OM4900	CLRRI RL1
OM4900	CLRRI RL2
OM4900_G_S1	Seed purchases
OM4900_G_S2	Seed purchases
OM4900_G_S3	Seed purchases
OM5239	CLRRI RL1
OM5239	CLRRI RL2
OM5451	CLRRI RL1
OM5451	CLRRI RL2
OM5472	CLRRI RL2
OM5629	CLRRI RL2
OM576	CLRRI RL1
OM5976	CLRRI RL1
OM5976	CLRRI RL2
OM5981	CLRRI RL2
OM6162	CLRRI RL1
OM6162	CLRRI RL2
OM6377 (AG1)	CLRRI RL2
OM6600	CLRRI RL2

VARIETY NAME	ORIGIN
OM6976	CLRRI RL1
OM6976	CLRRI RL2
OM8017	CLRRI RL2
OM8108	CLRRI RL1
P6	FCRI
Q5_S_S1	Seed purchases
RVT_S_S1	Seed purchases
RVT_S_S2	Seed purchases
RVT_S_S3	Seed purchases
SH14	PRC RL2
ST21_G_S2	Seed purchases
ST21_G_S3	Seed purchases
ST24_G_S2	Seed purchases
ST24_G_S3	Seed purchases
ST25_G_S1	Seed purchases
ST25_G_S2	Seed purchases
ST25_G_S3	Seed purchases
TBR225_S_S1	Seed purchases
TBR225_S_S2	Seed purchases
THAIXUYEN111_S_S2	Seed purchases
THAIXUYEN111_S_S3	Seed purchases
THAIXUYEN111_S_S4	Seed purchases
THIÊNƯ'U8_S_S2	Seed purchases
THIÊNƯ'U8_S_S3	Seed purchases
TN13-5	PRC RL2
VNR20_S_S2	Seed purchases
VNR20_S_S3	Seed purchases
VT404_G_S2	Seed purchases
VT404_G_S3	Seed purchases
XI23_S_S1	Seed purchases
XI23_S_S2	Seed purchases
XI23_S_S3	Seed purchases

Reference Library Used for Cassava DNA Varietal Identification

See the repository file “Reference libraries.xlsx” for the list of the 16,897 cultivars used.

Reference Library Used for Tilapia Strains Identification

Strain	Group	Country	Organization/s	Species	Batch A (DTi23.8867)	Batch B (DTi24.9029)	Hamilton et al. (2020) (DTi16-2108)	Total
GenoMar GAIN	Viet Nam	Viet Nam	GenoMar	<i>O. niloticus</i>		26		26
GIFT 13th	Viet Nam	Viet Nam	RIA1	<i>O. niloticus</i>	30			30
Philippines	Viet Nam	Viet Nam	RIA1	<i>O. niloticus</i>	30			30
ProGIFT China	Viet Nam	Viet Nam	RIA1	<i>O. niloticus</i>	30			30
Taiwan	Viet Nam	Viet Nam	RIA1	<i>O. niloticus</i>	30			30
NOVIT4 12th	Viet Nam	Viet Nam	RIA1	<i>O. niloticus</i>	30			30
Phu Ninh	Viet Nam	Viet Nam	RIA1	<i>O. niloticus</i>	30			30
GIFT-WF	GIFT	Malaysia	WorldFish	<i>O. niloticus</i>			99	99
GIFTFF	GIFT	Philippines	BFAR NFFTC	<i>O. niloticus</i>			47	47
BEST	GIFT-derived	Philippines	BFAR NFFTC	Hybrid			47	47
GET-ExCEL	GIFT-derived	Philippines	BFAR NFFTC	<i>O. niloticus</i>			94	94
Molobicus	GIFT-derived	Philippines	BFAR NIFTDC	Hybrid			172	172
Nile × Moss	GIFT-derived	Philippines	BFAR NIFTDC	Hybrid			21	21
Abbassa	Non-GIFT	Egypt	WorldFish	<i>O. niloticus</i>			122	122
Chitralada	Non-GIFT	Thailand	AIT	<i>O. niloticus</i>			94	94
FaST	Non-GIFT	Philippines	FAC CLSU	<i>O. niloticus</i>			120	120
<i>O. mossambicus</i>	Non-GIFT	Philippines	BFAR NIFTDC	<i>O. mossambicus</i>			36	36
Total					811	606	852	2269

Note: AIT = Asian Institute of Technology; BFAR NIFTDC = National Integrated Fisheries Technology Development Center; BFAR NFFTC = Bureau of Fisheries and Aquatic Resources, National Freshwater Fisheries Technology Center; FAC CLSU = Freshwater Aquaculture Centre, Central Luzon State University; RIA1 = Research Institute for Aquaculture No. 1. Source: Hamilton (2024)

Annex F. List of Improved Varieties Released in Viet Nam

Rice Varieties Released in Viet Nam, 2003-2023

Variety Name	Year of release	Institutional source	Parentage (Source 1)	Parentage (Source 2)	Parentage (Reported)	Decision
ST5	2003	DARD Soc Trang	Landrace from Soc Trang		Not IRRI-related	
PD2	2004	AGI & HPU	Mutated Nep 415 crossed w TK90		Parents pedigree unknown	
DR3	2004	BTI	CR203 Somatic regeneration		IRRI-related (P2)	
MTL149	2004	Can Tho University	IR56381-139-2-2		IRRI-related line	
OM2395	2004	CLRRI	IR63356-6B/TN1		IRRI-related (P)	2182 QD/BNN-KHCN, July 29, 2004
OM3536	2004	CLRRI	TDD8/OM1738		Parents pedigree unknown	2182 QD/BNN-KHCN, July 29, 2004
OM2822	2004	CLRRI	IR48/OM80-9-3		IRRI-related (P)	

OM3242	2004	CLRRI	IR64/K26		IRRI-related (P)	
OM3405	2004	CLRRI	Indian Pant #4 somatic variation		Parents pedigree unknown	
OM4495	2004	CLRRI	IR64/OM1706//IR64		IRRI-related (P)	
OMDS 20	2004	CLRRI	DaiLoan		Parents pedigree unknown	
VĐ20	2004	CLRRI	Imported from Taiwan		Parents pedigree unknown	
B1	2004	FCRI	28R (China) mutation		Not IRRI-related	
P1	2004	FCRI	Te thom/CR203		IRRI-related (P2)	
TN13-5	2004	Hanoi Agri Uni.	IR71/Nhi uu 838		IRRI-related (P)	
Việt lai 20 (VN20)	2004	Hanoi Agri Uni.	103S/R20		Parents pedigree unknown	
HD B 5	2004	Nguyen Nhu Khai . Food Insitute	-		No pedigree data available	

VH1	2004	Organic Agr. Co	VT1/N 1		Parents pedigree unknown	
LC93-1	2004	Plant Protection Research Institute	CT7739-2-M-3-3-2 (IRRI)		IRRI-related line	
QNT1	2004	Quang Ninh Seed Co.	Imported from China		Parents pedigree unknown	
Hương thơm số 1	2004	Thai Binh Seed Co.	Imported from China	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	Parents pedigree unknown	282/QD-TT-CLT, October 6, 2022
BAC UU 253	2004	TT GCT Nam Dinh	BoA/R253		Parents pedigree unknown	
AYT77	2004	VAAS	IR 689493 (TGMS)/C70	Pure rice varieties are chosen domestically.	IRRI-related (P)	192/QD-TT-CLT, May 22, 2023 (Extension of circulation)
BM9855	2004	VAAS	IR2153-26-3-5-2/VN10/Lemont		IRRI-related (P)	
BM9962	2004	VAAS	VN10/D88-6-5		IRRI-related (P2)	

DS101	2004	VAAS	IR352/Nep 415//TK90/IR352		IRRI-related (P)	
N97	2004	VAAS	Nep 87/Nep 415		Parents pedigree unknown	
Jasmine 85	2004		IR line	Select the imported line from Irri	IRRI-related line	74/2004/QD-BNN
Nếp 97	2004	NA	N87/ sticky 415	N87/ sticky 415 Method: hybrid, selective by genealogy method.	IRRI-related (P2)	2182 QD - BNN - Science MSLH: CNLH.2022.8 2, July 29, 2004 334 QD-TT-CLT, November 4, 2022
LĐ 2161	2004	NA	-		No pedigree data available	
OM2514-314	2005	CLRRI	OM1314/Nep MT		Parents pedigree unknown	3277 QD/BNN-KHCN, November 23, 2005
OM2717	2005	CLRRI	OM1738/TN B-100		Parents pedigree unknown	3277 QD/BNN-KHCN,

						November 23, 2005
OM2718	2005	CLRRI	OM29/IR50401//MCRDB		IRRI-related (P)	3277 QD/BNN-KHCN, November 23, 2005
AC5	2005	Dao Tuan Nhuan , Food Insitute	C70/CR203//10TGMS		IRRI-related (P2)	
HYT92	2005	FCRI	25A/PM3		Parents pedigree unknown	
M6	2005	FCRI	Bau Hai Phong/1548		IRRI-related (P2)	
TH3-3	2005	Hanoi Agri Uni.	T1S96/R3	2 lines hybrid rice. Select domestic creation from T1S-96/R3	Parents pedigree unknown	3713 QD/BNN-KHCN, December 30, 2005
Khái phong số 7	2005	Imported from China	Trung Ciu A/JR727		Not IRRI-related	
N203	2005	Nguyen thi Then, Hoang, Food Insitute	-		No pedigree data available	
P290	2005	Nguyen Trong Khanh , Vu Tuyen	DC1/IR24		IRRI-related (P)	

		Hoang, Food Insitute				
HYT83	2005	VAAS	IR58025A/RTQ5	3 hybrid rice varieties domestically. The line (R) RTQ5, the maintenance line (B) AMS20B, the parent line (A) AMS20A is selected domestically from the imported material source.	IRRI-related (P)	498/QD-TT-CLT, December 30, 2022 (Extension of circulation)
ĐS1	2006	AGI	Imported from Japan	Imported	Parents pedigree unknown	5110/QD-BNN-TT, December 31, 2019
ĐT37	2006	AGI	CR203/T2//Khang dan 18	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	IRRI-related (P2)	584/ QD-TT-CLT, December 28, 2016
OM1252	2006	CLRRI	IR42/OM80		IRRI-related (P)	

TH5-1	2006	Hanoi Agri Uni.	P5S/R1		Parents pedigree unknown	
Nghi hương 2308	2006	Imported from China	Nghi hương 1A/Nghi khôi 2308	Imported	Not IRRI-related	420/QD-TT-CLT, December 19, 2022
MT4-2	2006	Imported germplasm	-		No pedigree data available	
HONGKON G I	2006	Quang Ninh Seed Co.	-		No pedigree data available	
Nam ưu số 1	2006	SSC	BoA/R1		Parents pedigree unknown	
SYN-6	2006	Syngenta Co.	CA29A/CA177(R)		Not IRRI-related	
Thụy hương 308	2006	Vinaseed Co.	Thụy A/Ar308	Imported from China Thụy A/R308	Not IRRI-related	559/QD-TT-CLT, September 12, 2014
Khang dân Đột biến	2007	AGI	Khang dân 18 mutation	Hybridize domestically Handling mutations from Khang Dân 18	Not IRRI-related	373/QD-TT-CLT, November 30, 2022

CL9	2007	AGI	IR64/Khang dan 18		IRRI-related (P)	
DT38	2007	AGI	CR203/T2/Khang dan 18		IRRI-related (P2)	
BTE-1	2007	Bayer, India	CO2/M5		Parents pedigree unknown	
MTL384	2007	Can Tho Unviersity	L264/MTL142		IRRI-related (P2)	
MTL392	2007	Can Tho Unviersity	L274/Short aromatic rice//OM1723		Parents pedigree unknown	
OM4498	2007	CLRRI	IR64/ OMCS 2000//IR64		IRRI-related (P)	1183/QD-BNN-TT, May 3, 2007
OM2008	2007	CLRRI	NephoaVang/NN6A		Parents pedigree unknown	
OM4468	2007	CLRRI	D20/C34		Parents pedigree unknown	
OM5239	2007	CLRRI	IR 64/ OM 2395//OM 2395		IRRI-related (P)	
OM5636	2007	CLRRI	D26/IR 68//IR 68		IRRI-related (P)	

Vân quang 14	2007	Highlands ITD. Co	Imported from China		Parents pedigree unknown	
VNĐ 99-3	2007	IASSV	Mutation treatment on Nang Huong	Mutation; cot	Not IRRI-related	402QĐ/BNN-KHCN/QĐ, February 12, 2007
CNR36	2007	Thai Binh Seed Co.	CN8A/TH36R	Introductory: Created from hybrid combination CN8A/TH36R	Parents pedigree unknown	149/QĐ-TT-CLT, April 12, 2023
TBR-1	2007	Thai Binh Seed Co.	-		No pedigree data available	
D. ưu 363	2007	Trong Tin Co.Ltd	D62A/Thuc khoi 363		Parents pedigree unknown	
Tiên ưu 95	2007	Trong Tin Co.Ltd	Tien A/R95		Not IRRI-related	
Nhị ưu 86B	2007	Vinaseed Co.	Nhi 32A/Phuc khoi 86B	Imported from China II32A/Phuc Khoi 86B	Parents pedigree unknown	457/QĐ-TT-CLT, December 22, 2022
Đài thơm 8	2007	Vinaseed Co.	BVN/ OM 4900	Hybrid in BVN/ OM 4900	IRRI-related (P2)	1345/QĐ-BNN-TT, November 4, 2017

BT1	2008	ASINCV	-		No pedigree data available	
D.uu 6511	2008	Bac Ninh Seed. Co.	D62A/Nam khoi 6511	Origin: imported D Uu 6511 is created from a hybrid combination D26A/Nam Khoi 6511	Parents pedigree unknown	534/QD-TT-CLT, December 30, 2022
OM5930	2008	CLRRI	OM 3536 mutation		Parents pedigree unknown	154 QD-TT-CLT, July 9, 2008
ĐB5	2008	FCRI	Mutation line from 28R (China)		Not IRRI-related	194/QD-CT-CLT, May 22, 2023
N98	2008	FCRI	Yunshin//I.316/IR26	N98 is also called N87-2, chosen from the Yunshin/I.316/IR26 complex imported from IRRI in 1987	IRRI-related (P)	509/QSS-TT-CLT, November 11, 2013
B6	2008	FCRI	28R (China) mutation		Not IRRI-related	
BM202	2008	FCRI	Tep HP/D88-65//M92		Parents pedigree unknown	

CH207	2008	FCRI	landraces from Ha Giang/NN75-6		Not IRRI-related	
HT6	2008	FCRI	HT1/VH1		Parents pedigree unknown	
HYT102	2008	FCRI	AMS30S/GR10		Parents pedigree unknown	
HYT103	2008	FCRI	AMS30S/R103		Parents pedigree unknown	
LĐ1	2008	FCRI	Lua cam/HT1		Not IRRI-related	
PC10	2008	FCRI	Khang dan 18/MTL195		IRRI-related (P2)	
SH14	2008	FCRI	Peiai64S/Newteqing//IR10198		IRRI-related (P)	
T16	2008	FCRI	BT7/KD18		Not IRRI-related	
X26	2008	FCRI	Qua da huong/89-24-5-4		IRRI-related (P)	
Huong Cốm	2008	Hanoi Agri Uni.	125S/MR365/TX93///Maog ///R9311	High quality pure rice, fragrant. Select and create domestically, select from Huong125s/Mr365 // TX93 /// MaoGo /// r9311	Not IRRI-related	V691/QD-BNN-TT, March 4, 2008

TH3-4	2008	Hanoi Agri Uni.	T1S-96/R4	2 lines hybrid rice. Select and create domestically from T1S-96/R4	Parents pedigree unknown	691/QD-BNN-TT, March 4, 2008
TH7-2	2008	Hanoi Agri Uni.	T63S/R2	Rice hybrids 2 fragrant lines. Select domestic creation from T7S/R2	Not IRRI-related	624/QD-TT-CLT, December 27, 2012
Việt lai 24 (VN24)	2008	Hanoi Agri Uni.	103S/R24		Parents pedigree unknown	
ST21	2008	Ho Quang Tri Co.	Selected landrace		Not IRRI-related	
Phú ưu số 1	2008	Hong Quang Agr. M. Co. Ltd	Nhi 32A/R21		Parents pedigree unknown	
CNR6206	2008	Imported from China	C762A/RF106	Imported from China C762A/RF106	Parents pedigree unknown	559/QD-TT-CLT, September 12, 2014
Đại dương 1	2008	Imported from China	Xuyen huong 29A/Thanh khoi 178		Parents pedigree unknown	
Phú ưu 978	2008	Imported from China	Kim 23A/Gia hoi 978		Parents pedigree unknown	
Phú ưu số 4	2008	Imported from China	Nhi 32A/Gia hoi 978		Parents pedigree unknown	

THUC HUNG 6	2008	Ministry of Agriculture and Rural Development	Viet thai A/SH6		Not IRRI-related	
Q.uru 6	2008	Nghe an Agricultural Materials Company	Imported from China	Introductory import number 6	Not IRRI-related	191/Đ-TT-CLT, August 26, 2008 and 536/QĐ-TT-CLT, December 30, 2022 (Extension of circulation)
Nghe an 1	2008	Nghe an Agricultural Materials Company	-		No pedigree data available	
Vật tư-NA1	2008	Nghe an Agricultural Materials Company	-		No pedigree data available	
Che bien 3988	2008	Nha Ho Seed Co.	TH6 biến dị		Parents pedigree unknown	
LC 93-4	2008	Protected Insitute , VietNam	CAN-4140-1 (IRRI)		IRRI-related line	

BC15	2008	Thai Binh Seed Co.	Reselected from IR17494	Hybrid domestically. Filtered from a natural mutation in the population like February 13 (IR17494)	IRRI-related (P)	354/QD-TT-CLT, November 22, 2022 (Decision to extend circulation)
Nhị ưu số 7	2008	TT GCT Phu Tho	Nhi 32A/Luc khoi 17		Parents pedigree unknown	
HC1	2008	Vinaseed Co.	103S/R6		Not IRRI-related	
QR1	2009	AGI	DA15 selection	Imported and selected creation (from DA15)	Parents pedigree unknown	353/QD - TT - CLT, November 22, 2022
M25	2009	AGI	-		No pedigree data available	
SL12	2009	AGI	64S/9311		Parents pedigree unknown	

DT45	2009	AGI & FCRI	MT508/IRBB5	Choose by the accumulated hybrid method between IRBB5 rice varieties with the XA5 leaf-resistant gene and MT 508-1 rice variety combined with the selection with molecular indicators and chalk culture.	IRRI-related (P)	2964/QD-BNN-TT, July 30, 2019
LT25	2009	AGI & FCRI	-		No pedigree data available	
Nhị ứu 725	2009	ASINCV	Nhi 32A/Mien khoi 725	Imported	Not IRRI-related	418/QD-TT-CLT, December 19, 2022
ARIZE XL94017	2009	Bayer, Vietnam	-		No pedigree data available	
Bio404	2009	Bioseed Co.	HR4001A/HR4411120R		Not IRRI-related	
BJ99-11	2009	Bioseed Co.	Zhong9A/R1130		Parents pedigree unknown	

OM4059	2009	CLRRI	OM3405/MTL250		Not IRRI-related	198 QD-TT-CLT, June 18, 2009
OM4900	2009	CLRRI	C53/Jasmine85//Jasmine85		IRRI-related (P)	198 QD-TT-CLT, June 18, 2009
OM5199-1	2009	CLRRI	Khang dan 18/OM2512		Parents pedigree unknown	198 QD-TT-CLT, June 18, 2009
OM6073	2009	CLRRI	C3/D3//C3		Parents pedigree unknown	198 QD-TT-CLT, June 18, 2009
OM6561-12	2009	CLRRI	M12 mutation		Parents pedigree unknown	198 QD-TT-CLT, June 18, 2009
H1	2009	CLRRI	-		No pedigree data available	
OM1350	2009	CLRRI	IR42/IR64		IRRI-related (P)	
OM5628	2009	CLRRI	C54/IR64//C54		IRRI-related (P)	
OM5976	2009	CLRRI	-		IRRI-related (P)	

BT09	2009	FCRI	Kim23A / T10	BT09 rice varieties were selected and developed by the Center for Public Transfer and Agricultural Extension from the hybrid complex between the 23A and T10 Spring crop in 2006.	Parents pedigree unknown	2964/QD-BNN-TT, July 30, 2019
SH2 (XT27)	2009	FCRI	Huong thom 1 isolate		Not IRRI-related	359/QD-TT-CLT, August 2, 2011
Khang dan 28	2009	Ha Phat Co.	Imported from China		Not IRRI-related	
TH3-5	2009	Hanoi Agri Uni.	T1S-96/R5	2 hybrid rice, selected domestically from T1S-96/R5	Parents pedigree unknown	539/QD-TT-CLT, December 24, 2009
Nhị ưu 718	2009	Hanoi Agri Uni.	Nhi 32A/R718		Parents pedigree unknown	
MĐ1	2009	Hoa Binh province	CR203/Re Thanh		IRRI-related (P2)	
CNR5104	2009	Hong Quang Agr. M. Co. Ltd	G46A/Thuc khoi 527		Parents pedigree unknown	

Cương ưu 725	2009	Imported from China	46A/725	Imported	Not IRRI-related	417/QD-TT-CLT, December 19, 2022
Kim ưu 725	2009	Imported from China	Kim 23A/Minh khoi 725	Imported	Parents pedigree unknown	397/QD-TT-CLT, December 14, 2022
N ưu 69	2009	Imported from China	N5A/R97-69	Imported	Not IRRI-related	399/QD-TT-CLT, December 19, 2022
Thiên Châu 16	2009	Imported from China	CK2003/OM2008	CK2003/OM2008 hybrid complex is bred by the Mekong Delta Rice Institute.	Parents pedigree unknown	278/QD-TT-VPPN, November 13, 2020
Bác nhĩ ưu 15	2009	Imported from China	Bac nhi A/D15		Not IRRI-related	
Du ưu 600	2009	Imported from China	802A/6003R		Parents pedigree unknown	
Nam dương 99	2009	Imported from China	Nhi 32A/Tran khoi 084		Parents pedigree unknown	
Nghi hương 305	2009	Imported from China	Nghi huong 1A/FUR305		Parents pedigree unknown	
Phú ưu số 2	2009	Imported from China	K18A/Lu khoi 602		Parents pedigree unknown	

Thiên nguyên ưu 9	2009	Imported from China	Vi Vu Thien Nguyen/Vi lac 09		Parents pedigree unknown	
LC227	2009	IASSV	IR68703-AC-24-1 (IURON- 2000)		IRRI- related line	
LC408	2009	IASSV	IR65258-13-1-B (IURON-2004)		IRRI- related line	
LS1	2009	Lang Son Seed. Co	Imported from China	Imported from China	Parents pedigree unknown	/QD-TT-CLT, 2022
PHB71	2009	Pioneer, India	Imported from India		Parents pedigree unknown	
ĐT36	2009	Quang Ninh Seed Co.	-		No pedigree data available	
HR 182	2009	SSC	MN11A/MN11B // R182	Hybrid domestically, 3 -line hybrid combination (MN11A/MN11B) // R182	Parents pedigree unknown	98/QD- VPPN, March 8, 2023
Bác ưu 903KBL	2009	SSC	Bac Uu 903 + Xa 21		Parents pedigree unknown	

CNR02	2009	SSC	D62A/R205		Parents pedigree unknown	
PAC807	2009	SSC	Imported from India		Parents pedigree unknown	
Nông lâm 7	2009	Thai Nguyen University of Agriculture and Forestry	BT7/R17		Not IRRI-related	
Nhị ưu 986	2009	Thanh Hoa Seed Co., Nghe An seed Co.	Nhi 32A/Minh khoi 986		Parents pedigree unknown	
ĐN20	2009	Tropical Agri. Co	-		No pedigree data available	
Nàng xuân (Thiên hương 03)	2009	Tropical Agri. Co	-		No pedigree data available	
LC212	2009	TT GCT Lao Cai	103S/R212	- Origin: Choose domestically. - Materials for hybrid: Mother 103s and R212 line	Not IRRI-related	480/QD-TT-CLT, December 29, 2022 (Extension of circulation)

LC25	2009	TT GCT Lao Cai	137A/R6812	- Origin: Choose domestically. - Materials for hybrid: The mother line 137A and the R6812 line	Not IRRI-related	481/QD-TT-CLT, December 29 2022 (Extension of circulation)
LC270	2009	TT GCT Lao Cai	103S/R270	- Origin: Choose domestically. - Materials for hybrid: parent line 103s and father R270.	Not IRRI-related	482/QD-TT-CLT, December 29 2022 (Extension of circulation)
T10	2009	VAAS	DT10/Amber 33	DT10/AMBER33	Not IRRI-related	646/QD-TT-CLT, December 31, 2013
ML202	2010	Binh Thuan Seed co	-		No pedigree data available	
Nàng Hoa 9	2010	CLRRI	Jasmine85/AS996	8	IRRI-related (P)	122/QD-TT-VPPN, March 8, 2023

OM4088	2010	CLRRI	OM997/OM3536		Parents pedigree unknown	457/QD-TT-CLT, November 5, 2010
OM4218	2010	CLRRI	OM2031/MTL250	5	IRRI-related (P2)	457/QD-TT-CLT, November 5, 2010
OM5472	2010	CLRRI	OM2718/Jasmine85		IRRI-related (P)	457/QD-TT-CLT, November 5, 2010
OM6162	2010	CLRRI	C50/Jasmine85//C50		IRRI-related (P)	457/QD-TT-CLT, November 5, 2010
OM4101	2010	CLRRI	OM997/IR56279/OM3536		IRRI-related (P)	
AP2010	2010	DARD An Giang	IR50404 selection		IRRI-related (P)	
D ưu 725	2010	Imported from China	D62A/Mien Khoi 725	Imported	Parents pedigree unknown	414/QD-TT-CLT, December 19, 2022
Đặc ưu 11	2010	Imported from China	695A/DR911	Imported	Parents pedigree unknown	421/QD-TT-CLT, December 19, 2022

D.uru 177	2010	Imported from China	D62A/Thann khoi 177		Parents pedigree unknown	
Dương quang 18	2010	Imported from China	SVA x R5 three lines hybrid		Parents pedigree unknown	
HĐ1	2010	Mekong Delta Development Research Institute, CTU	AS996//MTL156/Nang Nhuan		IRRI-related (P2)	
SL8H	2010	Tập đoàn SL - Agritech - Philippines	SL-1A/SL-8R	Imported varieties from SL Agritech-Philippines Group, the mother line CMS is: SL-1A, Father line is: SL-8R	Parents pedigree unknown	89/TT, April 16, 2010
Thái xuyên 111	2010	Thai Binh Seed Co.	G71A/R211	Imported, created from hybrid G71A/R211	Parents pedigree unknown	300/QD-TT-CLT, October 19, 2022
Lang Liêu	2010	Tropical Agri. Co	-		No pedigree data available	
Nếp LANG LIEU	2010	Tropical Agri. Co	Landrace		Not IRRI-related	
HYT100	2010	VAAS	AMS20A (IR 58025A)/R100	The hybrid of the mother line 25A and the R100 line	IRRI-related (P)	78/QD-TT-CLT, April 8, 2010 and 193/QD-TT-

						CLT, May 22, 2023 (Extension of circulation)
LH12	2010	VAAS	IRRI (10L204)		IRRI-related line	
OM6161	2010	NA	-		No pedigree data available	457/QD-TT-CLT, November 5, 2010
DT57 - GS 747	2011	AGI & FCRI	Khang Dan 18/IRBB21		IRRI-related (P)	
OM18	2011	CLRRI	OM8017/OM5166	Domestic hybrid: (OM8017/OM5166)	IRRI-related (P2)	725/QD-BNN-TT, March 5, 2019
OM5451	2011	CLRRI	Jasmine 85/OM2490	Domestic hybrid: (Jasmine 85/OM2490)	IRRI-related (P)	711/QD-TT-CLT, December 7, 2011
OM5464	2011	CLRRI	OM3242/OM2490		IRRI-related (P2)	711/QD-TT-CLT, December 7, 2011
OM5629	2011	CLRRI	C27/IR64/C27		IRRI-related (P)	711/QD-TT-CLT, December 7, 2011

OM5954	2011	CLRRI	OM1644/OM1490		Parents pedigree unknown	711/QD-TT-CLT, December 7, 2011
OM5981	2011	CLRRI	IR28/AS996		IRRI-related (P)	711/QD-TT-CLT, December 7, 2011
OM6071	2011	CLRRI	-		No pedigree data available	711/QD-TT-CLT, December 7, 2011
OM6377 (AG1)	2011	CLRRI	IR64/TYPER3-123		IRRI-related (P)	711/QD-TT-CLT, December 7, 2011
OM6600	2011	CLRRI	C43/Jasmine85//C43		IRRI-related (P)	711/QD-TT-CLT, December 7, 2011
OM6932	2011	CLRRI	OM4088/OM5472		IRRI-related (P2)	222/QD-TT-CLT, June 2, 2016
OM7347	2011	CLRRI	KhaoDawmali/BL//BL		Parents pedigree unknown	711/QD-TT-CLT, December 7, 2011
OM8923	2011	CLRRI	Tissue culture from OM 4509		Parents pedigree unknown	711/QD-TT-CLT, December 7, 2011

OM2518	2011	CLRRI	-		No pedigree data available	
OM6677	2011	CLRRI	M22/AS996		IRRI-related (P2)	
PC6	2011	FCRI	N202/DT122	Select and create domestically from the hybrid complex N202/DT122	Parents pedigree unknown	70/QD-BNN-TT, March 14, 2011 and 521/QD-TT-CLT, December 30, 2022 (Extension of circulation)
XT27 (SH2)	2011	FCRI	-		No pedigree data available	
CT16	2011	Hanoi Agri Uni.	II32A/R16 three-line hybrid	Lend 3 lines of high yield. Select domestic creation from II32A/R16	IRRI-related (P)	768/QD-TT-CLT, December 29, 2011
C ư u đ a h ệ số 1	2011	Imported from China	-		No pedigree data available	
VT404	2011	Imported from China	-		No pedigree data available	

VT505	2011	Imported from China	-		No pedigree data available	
OMCS2009	2011	IASSV	OM1314/OM2514//OM2514		Parents pedigree unknown	
Vật tư-NA2	2011	Nghe an Agricultural Materials Company	Imported	Like imported inland s23	Parents pedigree unknown	609, October 25, 2011 and 536/QĐ-TT-CLT, December 30, 2022 (Extension of circulation)
ĐT34	2011	Quang Ninh Seed Co.	Imported from China	Pure rice varieties, selected from high quality rice varieties of Chinese origin	Parents pedigree unknown	431/QĐ-TT-CLT, September 8, 2011
ĐT52	2011	Quang Ninh Seed Co.	-		No pedigree data available	
Nam ưu 603	2011	SSC	-		No pedigree data available	
Nam ưu 604	2011	SSC	-		No pedigree data available	

TBR36	2011	Thai Binh Seed Co.	Imported and hybridized	Hybrid domestically. Choose and create from an individual in the source of imported materials	Parents pedigree unknown	148/QD-TT-CLT, April 12, 2023 (Extension of circulation)
TBR45	2011	Thai Binh Seed Co.	Imported and hybridized	Hybrid domestically. Choose and create from an individual in the source of imported materials	Parents pedigree unknown	147/QD-TT-CLT, April 12, 2023 (Extension of circulation)
Thanh ưu 3	2011	Trung tâm NCUDKHKT NN Thanh Hóa	RC10/103S		Parents pedigree unknown	
SQ2	2011	Van Dat Co.	Imported from China		Parents pedigree unknown	
OMCS 2009 (OM 7920)	2011	NA	-		No pedigree data available	711/QD-TT-CLT, December 7, 2011
NB01	2012	AGI	BT7 mutation	Hybrid transgenic gene resistance to Pi-1, PI-5 via DT7 rice stream	Not IRRI-related	559, December 9, 2014

Thịnh dụ 11	2012	Bac Ninh Seed. Co.	Imported from China		Parents pedigree unknown	
Pioneer brand 27P31	2012	Công ty Pioneer Hi - Bred Việt Nam	Imported from India		Parents pedigree unknown	
OM5953	2012	CLRRI	-		No pedigree data available	201/QD-TT-CLT, June 9, 2015
OM6976	2012	CLRRI	IR68144/OM997/OM2178/OM2868		IRRI-related (P)	711/QD-TT-CLT, December 7, 2011
OM8017	2012	CLRRI	OM5472/ Jasmine85		IRRI-related (P)	201/QD-TT-CLT, June 9, 2015
OM10636	2012	CLRRI	IR65418/OM6976		IRRI-related (P)	
Đại dương 8	2012	Dai Duong Co.Ltd	Bat duc K18A/Lo Khoi 602		Parents pedigree unknown	

GKG1	2012	DARD Kien Giang	Somaclonal Variation OM 2517	By the method of mutant ghost from the scar tissue of OM2517 rice variety	Parents pedigree unknown	415/QD-TT-CLT, August 30, 2012
Q. Nam 1	2012	DARD Quang Nam	KD18/VĐ20		Not IRRI-related	
ST20	2012	DARD Soc Trang	Selected landrace		Not IRRI-related	
N91	2012	Hanoi Agri Uni.	IRBB4 and 90-95 Japan lines selection		IRRI-related line	
N ừu 89	2012	Imported from China	D62A x DR911	Imported	Parents pedigree unknown	415/QD-TT-CLT, December 19, 2022
Nam Định 5 (NĐ5)	2012	Nghe an Agricultural Materials Company	Tam xoan Hai Hau mutation	Treatment of scar tissue mutations like eight oval	Not IRRI-related	496/QD-TT-CLT, December 30, 2022 (Extension of circulation)
Xuyên hương 178	2012	SSC	-		No pedigree data available	

Huong uu 3068 (MB8)	2012	Trong Tin Co.Ltd	-		No pedigree data available	
PHU QUY	2012	Tropical Agri. Co	-		No pedigree data available	
Hoa uu số 2	2012	Tuyen Quang Corp	Imported from China		Parents pedigree unknown	
Hoa uu 109	2012	Viet Hoa Co.	Imported from China		Parents pedigree unknown	384/QD-TT-CLT, August 17, 2012
VS1	2012	Vinaseed Co.	Imported and selection	Imported and selection	Parents pedigree unknown	370/QD-TT-CLT, November 30, 2022
LN111	2012	NA	Imported	Imported maintenance line	Parents pedigree unknown	605/Đ-TT-CLT, February 14, 2012
DT39 QUE LAM	2013	AGI	BT7 gamma		Not IRRI-related	
HOA KHOI 4	2013	An Viet Co.	-		No pedigree data available	
BG1 (ĐTL2)	2013	Bac Giang Seed Co.	Imported from China	Imported from China	Parents pedigree unknown	646/QD-TT-CLT, December 31, 2013

BG6	2013	Bac Giang Seed Co.	BG1 selection	Selective from the white rice dissociation line of BG1 variety	Parents pedigree unknown	646/QD-TT-CLT, December 31, 2013
OM8232	2013	CLRRI	OM 2490/IR 72046/OM 3556-1-9		IRRI-related (P)	433/QD-TT-CLT, September 23, 2013
ĐD2 (DAI DUONG 2)	2013	Dai Duong Co.Ltd	-		No pedigree data available	
GS333	2013	Dai Thanh Co.	-		No pedigree data available	
HYT108	2013	FCRI	AMS 30S/R108	The hybrid of the Mother AMS 30S and the R108 line	Parents pedigree unknown	70/QD-TT-CLT, February 28, 2013 and 497/QD-TT-CLT, December 30, 2022 (Extension of circulation)
P376	2013	FCRI	Selection from imported variety	Choose and create from the internal entry population	Parents pedigree unknown	70/QD-BNN-TT, February 28, 2013
HUONG BIEN 3	2013	Hai Phong Hi-Tech	-		No pedigree	

		agricultural Co.			data available	
DQ11	2013	Hong Quang Agr. M. Co. Ltd	-	The company select and create.	No pedigree data available	594/QD - TT - CLT; December 23, 2013
Sơn Lâm 1	2013	Son Lam Co.	-		No pedigree data available	
Phúc ưu 8 68	2013	SSC	MS8/R68	Hybrid domestically hybrid ms8/r68	Parents pedigree unknown	127/QD-TT-CLT, April 15, 2016
Nam ưu 20 9	2013	SSC	-		No pedigree data available	
ZZD 001	2013	NA	-		No pedigree data available	
TEJ VANG	2014	Bayer Vietnam	-		No pedigree data available	
OM8108	2014	CLRRI	M362/AS996		IRRI-related (P2)	

P9	2014	FCRI	P9/Te trang Dien Bien	Select and create domestically from the BT7/ Dien Bien white hybrid complex	Not IRRI-related	212/QD-BNN-TT, May 31, 2016
ĐB18	2014	Nguyen Nhu Hai	-		No pedigree data available	
Bac Thom 9	2014	SSC	-		No pedigree data available	
HUNG DAN	2014	Tropical Agri. Co	-		No pedigree data available	
VN121	2015	ASINCV & SSC	VND 31/ VND 22-26	Hybrid domestically, Hybrid formula: VND 31/ VND 22-26	Parents pedigree unknown	201/QD-TT-CLT, September 6, 2015
Nếp THOM HUNG YEN	2015	DARD Hung Yen	Nep Yen My		Not IRRI-related	
THANH UU 4	2015	DARD Thanh Hoa	-		No pedigree data available	

HT18	2015	FCRI	-		No pedigree data available	575/QĐ-BNN-CLT, December 21, 2015
HN6	2015	Ha Nam seed Co.	Imported from China	Imported from China, chose to create from individual selection methods	Parents pedigree unknown	556/Đ-TT-CLT, December 15, 2015 (Northern provinces); 2964/QĐ-BNN-TT, July 30, 2019 (South Central Coast and Central Highlands provinces)
Hồng Đức 9	2015	Hong Duc University	-		No pedigree data available	
HKT99	2015	Imported from China	Imported	Hybrid rice varieties imported from Trign Quoc	Parents pedigree unknown	225/QĐ-TT-CLT, June 9, 2015
Bac Thinh (Thuan Viet 2)	2015	North Central Seed Company	MS4 / Huong Thom So 1		Parents pedigree unknown	
S9368	2015	Sygenta	-		No pedigree data available	

TBR225 (NC7)	2015	Thai Binh Seed Co.	K2/TBR27	Hybrid domestically. Created from a hybrid combination K2/TBR27	Parents pedigree unknown	202/QD-TT-CLT, June 9, 2015
CO TIEN	2015	Tropical Agri. Co	-		No pedigree data available	
Thiên ưu 8	2015	Vinaseed Co.	NSC3 selection	imported and selection from the NSC3 population	Parents pedigree unknown	58/QD-TT-CLT, March 5, 2015
Hồng Đức 9	2015	NA	-		No pedigree data available	202/QD-CT-CLT, June 9, 2015
M1-NĐ	2016	Cuong Tan Co.	-		No pedigree data available	502/QD-CT-CLT, November 25, 2016
OM10424	2016	CLRRI	OM5199 ĐB		Parents pedigree unknown	
KINH SO UU 1588	2016	DARD Bac Giang	Imported from China		Parents pedigree unknown	

Gia Lộc 105	2016	FCRI	P6/Xi23//IRBB7/Q5	Select and create domestically from the hybrid combination P6/XI23 // IRBB7/Q5	IRRI-related (P2)	398/QD-TT-CLT, September 26, 2016
TH3-7	2016	Hanoi Agri Uni.	T1S-96BB/R7	2 lines hybrid rice, selected for creation from T1S-96B/R7	Parents pedigree unknown	127/QD-TT-CLT, April 15, 2016
Thuần Việt 1	2016	Thanh Hoa Seed Co.	Landrace selection	Select and create domestically	Not IRRI-related	212/QD-TT-CLT, May 31, 2016
RVT	2016	Vinaseed Co.	Landrace selection		Not IRRI-related	
GKG9	2016	NA	OM5472/ Thai long rice	By culture of hybrid hybrid pollen bags from hybrid combination OM5472/ Thai long rice	IRRI-related (P2)	222/QD-TT-CLT, June 2, 2016

GL 105	2016	NA	P6/XI23 // IRBB7/Q5	P6/XI23 // IRBB7/Q5 Selective by genealogy method.	IRRI-related (P2)	398/QD-TT-CLT, September 26, 2016
Kim uu 18	2016	NA	Imported from China	Imported	Parents pedigree unknown	127/QD-TT-CLT, April 15, 2016
N31	2016	NA	DT22/N98	The N31 fragrant sticky rice is selected from the sexual hybrid combination between DT22 sticky rice and N87-2 sticky rice (N98) from the 2006 crop	IRRI-related (P2)	501/QD-TT-CLT, November 25, 2016
Nam uu 209	2016	NA	MN 18A/ Phuc Khoi 838 KBL	Domestic hybrid, 3 - line hybrid combination MN 18A/ Phuc Khoi 838 KBL	Parents pedigree unknown	374/QD-TT-CLT, September 6, 2016
OM8928	2016	NA	-		No pedigree data available	222/QD-TT-CLT, June 2, 2016

TBJ3	2017	AGI	Imported from Japan		Parents pedigree unknown	
MT10	2017	ASINCV	-		No pedigree data available	
T92-1	2017	Imported from China	-		No pedigree data available	
SV181	2017	Quang Binh Seed Co.	-		No pedigree data available	
Kim cương 111	2017	SSC	BC15/R03-1KTC	Hybridize domestically The hybrid formula BC 15/ R03-1	IRRI-related (P2)	725/QD-BNN-CLT, May 3, 2019
HQ19	2017	VNUA	E15S/R2	HQ19 is the F1 hybrid of the E15S mother line and the nuggets of the nuggets (R2).	Parents pedigree unknown	3875/QD-BNN-TT, September 27, 2017

Hương Cốm 4	2017	VNUA	MHV dissociation population	Quality pure rice, fragrant. Select and create domestically, select from individuals separating from the mhv rice population imported	Not IRRI-related	3062/QD-BNN-TT, July 19, 2017
Bắc hương 9	2017	NA	HT1/RT5	Hybridize domestically HT1/RT5	Parents pedigree unknown	4685/QD-TT-CLT, November 16, 2017
Gia Lộc 202	2017	NA	PEIAI64S/Q5 // DT37	Select and create domestically from PEIAI64S/Q5 // DT37	Parents pedigree unknown	327/QD-TT-CLT, September 5, 2017
Gia Lộc 301	2017	NA	Imported and selected	Choose and create from the source of imported breeds	Parents pedigree unknown	64/QD-TT-CLT, April 4, 2017
Lộc Trờì 3	2017	NA	OM6776/OM6916	Domestic hybrid: OM6776/OM6916	Parents pedigree unknown	5005/QD-BNN-TT, November 30, 2017

N25	2017	NA	R9311	Select and create domestically by mutant treatment method from the population like R9311	Parents pedigree unknown	3531/QD-BNN-TT, August 30, 2017
OM9921	2017	NA	-		No pedigree data available	4686/QD-BNN-TT, November 16, 2017
HUONG UU 98	2017	NA	Imported from China		Parents pedigree unknown	
KR1	2018	AGI	-		No pedigree data available	
Lộc Trời 1 (AGPPS103)	2018	Loc Troi company	IR64/Basmati 370	Domestic hybrid: IR64/Basmati 370	IRRI-related (P)	13/QD-TT-CLT, January 15, 2016
ADI 168	2018	NA	Imported	Imported	Parents pedigree unknown	2123/QD-BNN-TT, Jun 06, 2018
ADI 28	2018	NA	Imported	Imported	Parents pedigree unknown	950/QD-BNN-TT, March 16, 2018

AN26-1	2018	NA	ML203/OM4498	- An26-1 varieties, created and selected by the South Central Institute of Agricultural Science and Technology, from the three hybrid combination of 3 breeds of aromatic rice, ML203 and OM4498	IRRI-related (P2)	639/QD-BNN-TT, February 23, 2018
CS6-NĐ	2018	NA	-		No pedigree data available	3704/QD-CT-CLT, September 24, 2018
Đông A1	2018	NA	Imported from Phillipines	Hybrid domestically. Choose and create from an individual in the source of imported materials from the Phillipines	Parents pedigree unknown	537/QD-BNN-TT, February 7, 2018
ĐTM 126	2018	NA	DS 2001/MTL 250	Single hybrid combination of DS 2001/MTL 250	IRRI-related (P2)	639/QD-BNN-TT, February 23, 2018

Lộc Trời 5	2018	NA	OM6976/OM5451	Domestic hybrid: OM6976/OM5451	IRRI- related (P2)	2385/QD- BNN-TT, October 2, 2018
Lúa thuần Lam Sơn 8	2018	NA	Imported	Imported	Parents pedigree unknown	4701/QD- BNN-TT, November 27, 2018
LY2099	2018	NA	R99/L20A	Inner import, is a hybrid combination of R99/L20A, L20B recovery line.	Parents pedigree unknown	4401/QD- BNN-TT, November 7, 2018 and 175/QD-TT- VPPN, September 1, 2021
OM9577	2018	NA	-		No pedigree data available	3825/QD- BNN-TT, October 2, 2018
OM9577	2018	NA	OM6976/OM5472	Domestic hybrid: OM6976/OM5472	IRRI- related (P2)	2385/QD- BNN-TT, October 2, 2018
PC26	2018	NA	Imported and selected	Selective from imported source	Parents pedigree unknown	870/QD- BNN-CLT, March 12, 2018

VAAS16	2018	NA	JVC selection	The Japonica line (JVC) was isolated and selected in the spring crop of 2009, yielding 100 individuals with varied phenotypic traits. The JVC2 line was chosen, renamed DDS3 in 2011, and evaluated at the Tu Liem testing station	Parents pedigree unknown	870/QD-BNN-TT, March 12, 2018
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Vật tư-NA6	2018	NA	BM9962 x TBR18	Materials-na6 varieties are bred and selected from the system from BM9962 x TBR18,	IRRI-related (P2)	46/QD-BNN-TT, January 8, 2018
J01	2019	AGI	Imported	Imported	Parents pedigree unknown	484/QD-BNN-TT, January 31, 2019
J02	2019	AGI	-		No pedigree data available	
LTH31	2019	FCRI	HT1/ IA Cuba28	Select and create in HT1 / IA Cuba28	Parents pedigree unknown	3645/QD-BNN-TT, July 5, 2019
ST25	2019	Ho Quang Tri Co.	Selected landrace		Not IRRI-related	

DH12	2019	NA	R2/R9311	DH12 is chosen by the method of hybrid, selective genealogy (pedigree) from the F2 dissociation population of the hybrid combination between the mother R2 (Huong nuggets) and the R9311 line	Parents pedigree unknown	4942/QD-BNN-TT, December 24, 2019
DT 80	2019	NA	Landrace selection	Select and create domestically	Not IRRI-related	2645/QD-BNN-TT, July 5, 2019
DT100	2019	NA	Imported and selection	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	Parents pedigree unknown	4409/QD-BNN-TT, November 19, 2019

Dự hương 8	2019	NA	VS1 mutation	Hybridize domestically Mutation processing from VS1 variety	Parents pedigree unknown	309/QD-TT-CLT, January 22, 2019
HDT10	2019	NA	N46/DE6	Select and create domestically from the hybrid complex N46/DE6 (combining the method of indicating the trial selection, aromatic gene)	Parents pedigree unknown	309/QD-BNN-TT, January 22, 2019
HQ21	2019	NA	E15S/R29	HQ21 was chosen to be created by a hybrid between the fragrant TGMS line E15S and the R29 series of hotness	Parents pedigree unknown	4711/QD-BNN-TT, December 9, 2019
HYT116	2019	NA	AMS 30S/R116	The hybrid of the Mother AMS 30S and the R116 line	Parents pedigree unknown	3101/QD-BNN-TT, December 31, 2019
HYT124	2019	NA	AMS 30S/R100	The hybrid of the Mother AMS 35S and the R100 line	Parents pedigree unknown	5157/QD-BNN-TT,

						December 31, 2019
Lai thơm 6	2019	NA	T6s/R6	Rice hybrid 2 lines, selected domestically from t6s/r6	Parents pedigree unknown	5098/QD-BNN-TT, December 31, 2019
Lộc Trời 2	2019	NA	OM7347/KDML105 // OM7347	Domestic hybrid: OM7347/KDML105 // OM7347	IRRI-related (P2)	695/QD-BNN-TT, February 28, 2019
Lộc Trời 4	2019	NA	OM4088/OM5472 // om6976	Domestic hybrid: OM4088/OM5472 // om6976	IRRI-related (P2)	695/QD-BNN-TT, February 28, 2019
MHC2	2019	NA	M6S/R5	Select and create domestically (M6S/R5)	Parents pedigree unknown	4409/QD-BNN-TT, November 19, 2019 (North) and 289/QD-TT-CLT, October 7, 2022 (Southern)
Nếp - AG	2019	NA	CK89/IR50404	Domestic hybrid: CK89/IR50404	IRRI-related (P)	2964/QD-BNN-TT, July 30, 2019
OM11735	2019	NA	-		No pedigree data available	4456/QD-BNN-TT, November 2, 2019

OM232	2019	NA	-		No pedigree data available	880/QD-BNN-TT, March 18, 2019
OM406	2019	NA	-		No pedigree data available	5110/QD-BNN-TT, December 31, 2019
OM9582	2019	NA	OM67976/OM5166	Selected by the Mekong Delta Rice Institute created from the OM67976/OM5166 complex	Parents pedigree unknown	695/QD-BNN-TT, February 28, 2019
OM9915	2019	NA	-		No pedigree data available	4456/QD-BNN-TT, November 2, 2019
Phúc Thái 168	2019	NA	Chongfeng 1A/chonghui3301	Imported. Created from chongfeng 1A/chonghui3301	Parents pedigree unknown	5157/QĐ-BNN-TT, December 31, 2019
PY2	2019	NA	ML49/IR50404	Origin: ML49/IR50404.	IRRI-related (P)	2964/QD - BNN - TT, July 30, 2019
QP 5	2019	NA	ST19 mutation	Handling gene mutations from ST 19	Parents pedigree unknown	766/QD - BNN-TT, March 4, 2019

SHPT3	2019	NA	Khang Dan 18/PSBRC68	Select and create a hybrid combination between Khang Dan 18 hybrid and PSBRC68 breed with sub1 flooded gene imported from Irri	Not IRRI-related	2645, July 5, 2019 (North) and 204, October 25, 2021 in the Central region
TÂN ƯU 98	2019	NA	M202/BM9820	M202/BM9820 Handy hybrid, select genealogy	Not IRRI-related	5098/QD-BNN-TT, December 31, 2019
TBR279	2019	NA	Imported and hybridized	Hybrid domestically. Choose and create from an individual in the source of imported materials	Parents pedigree unknown	309/QD-BNN-TT, January 22, 2019
Thiên trường 217	2019	NA	21S/R77	2 21S/R77 hybrid rice varieties	Parents pedigree unknown	359/QD-BNN-CT, December 31, 2019
TL2	2019	NA	DH18 mutation	Select and create domestically by mutant treatment method from the 18th DH18	Parents pedigree unknown	4943, December 24, 2019

A Sào	2020	NA	Landrace mutation	Hybrid domestically. Selective from a natural mutation in the local population collected in An Thai, Quynh Phu, Thai Binh commune	Not IRRI-related	146/QĐ-TT-CLT, July 23, 2020
Bắc Đẩu	2020	NA	Imported	Imported Mid-year crop rice, recovery line	Parents pedigree unknown	208/QĐ-TT-VPPN, September 30, 2020
BĐR27	2020	NA	-	The Rice Variety of BDrang27 has been created and selected by the Institute of Science and Technology of Coastal Agriculture and Science and Technology	No pedigree data available	290/QĐ-TT-VPPN, November 24, 2020

ĐTM 14-258	2020	NA	OM 5930/Dular/AS 996	Hybrid combination 3 (OM 5930/ Dular)/ AS 996, in which OM 5930 varieties are high quality, Dular is a hot - bearing rice line, AS 996 is a rice -bearing rice variety.	IRRI-related (P2)	121/QD-TT-CLT, June 17, 2020
Gia Lộc 26	2020	NA	Imported and selected	Selective from imported source	Parents pedigree unknown	337/QD-BNN-TT, December 23, 2020
Gia Lộc 35	2020	NA	Imported and selected	Selective from imported source	Parents pedigree unknown	277/QD-BNN-TT, November 13, 2020
GKG24	2020	NA	OM5199/OM6600	Selective genealogy from the OM5199/OM6600 hybrid rice complex	IRRI-related (P2)	264/QD-TT-VPPN, November 2, 2020
GKG5	2020	NA	OM5490/OM6162	By culture of hybrid Pollen Bag F1 from the OM5490/OM6162 hybrid complex	IRRI-related (P2)	265/QD-TT-VPPN, November 2, 2020

HANA 112	2020	NA	Imported	Imported	Parents pedigree unknown	89/QD-TT-CLT, May 14, 2020
HANA 167	2020	NA	Imported	Imported	Parents pedigree unknown	190/QD-TT-CLT, September 8, 2020
HANA 318	2020	NA	Imported	Imported	Parents pedigree unknown	71/QD-TT-CLT, April 13, 2020
HANA 39	2020	NA	Imported	Imported	Parents pedigree unknown	131/QD-TT-CLT, June 30, 2020
HANA SỐ 6	2020	NA	Imported	Imported	Parents pedigree unknown	369/QD-TT-CLT, December 29, 2020
HANA SỐ 7	2020	NA	Imported	Imported	Parents pedigree unknown	164/QD-TT-CLT, August 18, 2020
HD11	2020	NA	HDT8/Teiquing	Select and create domestically from HDT8/Teiquing hybrid complex	Parents pedigree unknown	314/QD-BNN-TT, December 8, 2020
Hương Bình	2020	NA	-	The company select and create.	No pedigree data available	125/QD - TT - CLT, June 19, 2020
HƯƠNG NHÀ 165	2020	NA	Imported	Imported	Parents pedigree unknown	270/QD-TT-CLT, November 5, 2020

Lộc Trời 153	2020	NA	Ag7/Khang Dan 18	Domestic hybrid: Ag7/Khang Dan 18	Not IRRI-related	199/QD-TT-CLT, September 24, 2020
Lộc Trời 183	2020	NA	Fragrance 1/Ag8	Domestic hybrid: Fragrance 1/Ag8	Parents pedigree unknown	284/QD-TT-CLT, November 20, 2020
Lúa thuần Thanh Hương	2020	NA	Imported	Imported	Parents pedigree unknown	320/QD-TT-CLT, December 11, 2020
N24	2020	NA	Japonica 13/AC5/P6ĐB	Select and create domestically from the Japonica 13/AC5/P6ĐB hybrid complex	Parents pedigree unknown	209/QD-BNN-TT, October 1, 2020
Nếp Hương	2020	NA	Landrace selection	The company select and create.	Not IRRI-related	100/QD - TT - CLT, May 27, 2020
NẾP THƠM 86	2020	NA	BM9603/N98	Bm9603/n98 The N86 variety is chosen by a sexual hybrid, selective system in the net house and in the field, selecting a pure line.	IRRI-related (P2)	75/QD-TT-CLT, April 21, 2020

NT202	2020	NA	N87-2/DT22	Select and create domestically from the hybrid complex N87-2/DT22	Parents pedigree unknown	197/QD-BNN-TT, September 18, 2020
OM20	2020	NA	-		No pedigree data available	219/QD-TT-VPPN, October 1, 2020
OM344	2020	NA	-		No pedigree data available	278/QD-TT-VPPN, November 13, 2020
OM355	2020	NA	-		No pedigree data available	259/QD-TT-VPPN, October 27, 2020
OM3673	2020	NA	-		No pedigree data available	317/QD-TT-VPPN, December 9, 2020
OM368	2020	NA	-		No pedigree data available	316/QD-TT-VPPN, December 8, 2020
OM375	2020	NA	-		No pedigree data available	217/QD-TT-VPPN, October 1, 2020
OM380	2020	NA	-		No pedigree	218/QD-TT-VPPN,

					data available	October 1, 2020
OM384	2020	NA	-		No pedigree data available	315/QD-TT-VPPN, December 8, 2020
OM402	2020	NA	-		No pedigree data available	195/QD-TT-VPPN, September 16, 2020
OM429	2020	NA	OM5451*2/FL478	Domestic hybrid: OM5451*2/FL478	IRRI-related (P2)	191/QD-TT-VPPN, September 11, 2020
OM461	2020	NA	-		No pedigree data available	220/QD-TT-VPPN, October 1, 2020
QL301	2020	NA	Tham97A/R587	Imported. Created from the SHEN97A hybrid complex (Tham97A)/R587	Parents pedigree unknown	145/QD-TT-CLT, July 23, 2020
TBR89	2020	NA	TB5/NC2	Hybrid domestically. Created from TB5/NC2 hybrid complex	Parents pedigree unknown	108/QD-TT-CLT, May 29, 2020

VNR10	2020	NA	R8/OM6976	Hybridize domestically R8/OM6976	IRRI-related (P2)	78/QD-TT-CLT, April 29, 2020
VNR20	2020	NA		Hybridize domestically. VS6/OM7347	IRRI-related (P2)	178/QD-TT-CLT, September 3, 2020
VNR88	2020	NA	-	Hybridize domestically Selective genealogy from 2 hybrid rice varieties you 366	No pedigree data available	250/QD-TT-CLT, October 21, 2020
DT120	2021	NA	Imported and selected	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	Parents pedigree unknown	180/QD-TT-CLT, September 14, 2021

Hồng hương ĐT128	2021	NA	Imported and selected	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	No pedigree data available	181/QD-TT-CLT, September 14, 2021
IR 4625	2021	NA	IR line	Imported from Irri	IRRI-related line	62/QD-TT-CLT, April 2, 2021
KING 6	2021	NA	-	Hybridize domestically	No pedigree data available	203/QD-TT-CLT, October 25, 2021
An Ưu 8	2022	NA	Imported	Imported	Parents pedigree unknown	460/QD-TT-CLT, December 22, 2022
Bao thai lùn Quảng Ninh	2022	NA	Landrace selection	Local varieties have existed for a long time in production, assigned by the Provincial People's Committee to maintain the selection and production of the original varieties to localities.	Not IRRI-related	288/QD-TT-CLT, October 7, 2022

BĐR57	2022	NA	An26-1 x Khao Dawk Mali 105	The same as BDR57 was selected from An26-1 x Khao Dawk Mali 105	Parents pedigree unknown	265/QD-TT-VPPN, September 28, 2022
BĐR999	2022	NA	AN1/ANS1	Seeds of BD999 are chosen from hybrid AN1/ANS1 combination.	Parents pedigree unknown	264/QD-TT-VPPN, September 28, 2022
Cửu Long 555	2022	NA	IR 50404 mutations	Handling IR 50404 mutations	IRRI-related (P)	279/QD-TT-VPPN, October 5, 2022
ĐB6	2022	NA	28R radiation	Internal import and treatment of radioactive mutations from the 28 r line	Not IRRI-related	371/QD-TT-CLT, November 30, 2022
Kim cương 90	2022	NA	Imported and selected	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	Parents pedigree unknown	286/QD-TT-CLT, October 6, 2022
KOJI	2022	NA	-		No pedigree data available	231/QD-CT-CLT, September 9, 2022

Lộc Trời 28	2022	NA	Loc Troi 1/Basmati	Domestic hybrid: Loc Troi 1/Basmati	IRRI-related (P2)	350/QD-TT-VPPN, November 18, 2022
Nếp cái hoa vàng Đông Triều	2022	NA	Landrace selection	Specialty sticky rice varieties of Dong Trieu Quang Ninh are maintained and selected by Quang Ninh Seed Joint Stock Company	Not IRRI-related	299/QD-TT-CLT, October 19, 2022
Nếp DT	2022	NA	TK90X/ĐV2	Domestic hybridization from	Parents pedigree unknown	351, December 30, 2022
Nếp ĐT52	2022	NA	Landrace selection	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	Not IRRI-related	284/QD-TT-CLT, October 6, 2022
Nhị ưu 838	2022	NA	Nhi 32A/Phuc Khoi 838	Imported from China I132A/Phuc Khoi 838	Parents pedigree unknown	535/QD-TT-CLT, December 30, 2022

Q5	2022	NA	Imported and selected	Select hybrid by genealogy method at the company, from the source of imported materials of unknown origin	Parents pedigree unknown	285/QD-TT-CLT, October 06, 2022
Séng cù	2022	NA	Imported from China	Introductory: China	Parents pedigree unknown	358/QD-TT-CLT, December 22, 2022
Smart56	2022	NA	Imported and selected	Select and create domestically from the source of imported materials with traditions	Parents pedigree unknown	348/QD-TT-VPPN, November 18, 2022
TBR97	2022	NA	Gia Loc 107/Khang Dan 18/ĐBB5	Hybrid domestically. Created from Gia Loc 107/Khang Dan 18/ĐBB5	Parents pedigree unknown	194/QĐ-TT-CLT, August 1, 2022
Thom RVT	2022	NA	Imported and selected	Imported and selection	Parents pedigree unknown	372/QD-TT-CLT, November 30, 2022
RBR-1	2022	NA	Q5 mutation	Hybrid domestically. Selective from 1 mutation like q5	Not IRRI-related	540/QD-TT-CLT, December 30, 2022 and

						173/QD-TT-CLT, May 4, 2023 (Extension of circulation)
CS 04	2023	NA	AI3A/R6031	#NAME?	Parents pedigree unknown	166/ QD -TT-CLT, April 21, 2023
Cửu Long 451	2023	NA	OM5451/OM6600	Selective from hybrid combination Om 5451/om 6600	IRRI-related (P2)	140/QD-TT-VPPN, April 11, 2023
Cửu Long 666	2023	NA	OM6976/Phu Tan sticky	Selective from hybrid combination Om 6976/Phu Tan sticky	IRRI-related (P2)	141/QD-TT-VPPN, April 11, 2023
HG12	2023	NA	Imported from China	Imported from China, chose to create from individual selection methods	Parents pedigree unknown	191/QĐ-TT-VPPN, May 22, 2023
Hương Cửu Long	2023	NA	OM5464/OM6600	Selective from hybrid combination Om 5464/om 6600	IRRI-related (P2)	16/QD-TT-VPPN, January 9, 2023

Nếp Hạt cau	2023	NA	Landrace selection	Prostrate local like local and Select and create.	Not IRRI-related	146/QD - TT - CLT, April 12, 2023
TBT132	2023	NA	13/2 mutation	Selective pure lines from the mutant lines of rice varieties 13/2.	Parents pedigree unknown	68/QD-TT-VPPN, February 15, 2023
LP5	2019	NA	Imported	Imported	Parents pedigree unknown	4942/QD-BNN-TT, December 24, 2019, 10/QD-TT-CLT, January 5, 2023
Lúa lai KCR 06-1	2019	NA	MN 18A/ RKC06-1	Create domestically hybrid 3 lines MN 18A/ RKC06-1	Parents pedigree unknown	4045/QD-BNN-TT, October 24, 2019
MV2	2019	NA	14A/R20	3 hybrid rice with high yield lines, selected domestic creation from 14A/R20	Parents pedigree unknown	5157/QD-BNN-TT, December 31, 2019
Hương Châu 6	2020	NA	BVN/OM 6162 // fragrant RVT	Domestic hybrid: BVN/OM 6162 // fragrant RVT	IRRI-related (P2)	116/QD-BNN-TT, November 6, 2020

An Sinh 1399	NA	NA	OM6916/ĐV108/OMCS98	ANS1 rice variety is created and selected by the South Central Coastal Agricultural Science and Technology Institute from the OM6916/ĐV108/OMCS98 hybrid complex.	Parents pedigree unknown	44/QD-BNN-TT, January 8
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Institute Abbreviations

AGI	Agricultural Genetics Institute
ASINCV	Agricultural Science Institute of Northern Central Vietnam
CLRRI	Cuu Long Rice Research Institute
FCRI	Field Crops Research Institute
IASVN	Institute of Agricultural Sciences for South Vietnam
Loc Troi Group	Loc Troi Group Joint Stock Company
Nghe An Agrimex	Nghe An Agricultural Materials JSC
Thai Binh Seed Co.	Thai Binh Seed Company
SSC	Southern Seed Corporation
VNUA	Vietnam National University of Agriculture
IITA	The International Institute of Tropical Agriculture
MDRRI	Mekong Delta Rice Research Institute

Cassava Improved Varieties Released in Viet Nam, 2003-2023

Variety name	Year of release or first use	Institutional source of this variety	Pedigree 1	Pedigree 2 <i>CIAT-related or not</i>
KM98-1	2005	RFCRC/IAS	Rayong 1x Rayong 5	Yes
KM98-5	2005	IAS	Rayong 90 * KM 98-1	Yes
KM 10	2010	IAS		Yes
KM140	2010	IAS	KM 36 x KM98-1	Yes
Sa21-12	2012	Rayong field crop research center, CIAT	Mother: CM805-15	Yes
Sa06	2012	FCRI	CMR31-19-23 x OMR29-20-118	Yes
NA1	2012	AGI	Mother: MIF	No
HL-S10	2015	IAS	KM146x KM140	No
HL-S11	2015	IAS	SM937-26 x KM60	Yes
KM419	2016	TUAF	BKA900 x KM98-5 x KM98-5	No
HL2004-28	2016	TUAF	Mother: KM94	Yes
KM7 (KM505)	2016	ASINCV	Mother: SM937-26	Yes
BK	2019	FCRI	Mother: BKA900	No
13Sa05	2020	FCRI	NA	No
STB1/HL2004-32	2021	ASISOV	KM444	No
HN5	2022	IITA/AGI	IITA-TMS-IBA980581	Yes
HN1	2023	IITA/AGI	TMEB419	Yes
HN3	2023	IITA/AGI	ITA-TMS-IBA920057	Yes
SA21 – 12	2023	FCRI	SM2354-4 with Mother: CM805-15 from CIAT/Colombia (GY94.35 Z01)	Yes
SDA15	2023	AGI	SR011	N/A

SA07/18Sa07	2023	FCRI	NA	No
HN36	2023	CIAT/AGI	C-18 x CM7951-5	Yes
HN80	2023	CIAT/AGI	C-243 x CM7951-5	Yes
HN97	2023	CIAT/AGI	CW257-12 x C243	Yes

Note: Varieties are search from different sources, including database of Department of Crop Production – Ministry of Agriculture and Rural Development (<https://csdltrongtrot.mard.gov.vn/>), and and other research institutes such as Field Crops Research Institute (<http://fcri.com.vn/>) and Vietnam Academy of Agricultural Sciences (<https://vaas.vn/vi/>). No information could be found on the pedigree and year of release for KM57 and SC9 varieties.

Institute Abbreviations

AGI	Agricultural Genetics Institute
ASISOV	Agricultural Sciences Institute for Southern Coastal Central of Vietnam
FCRI	Field Crops Research Institute
HARD	Hung Loc Agricultural Research Center
IAS	Institute of Agricultural Sciences for Southern Viet Nam
IITA	International Institute of Tropical Agriculture
NLU	Nong Lam University
TUAF	Thai Nguyen University of Agriculture & Forestry
RCRDC	Root Crop Research and Development Center; Country of Origin -Taiwan

Sweetpotato Improved Varieties Released Viet Nam, 2003-2023

Variety name	Year of release or first use	Institutional source of this variety	Pedigree 1	Pedigree 2 <i>CGIAR-related or not</i>
DT2	2006	AGI		N/A
KLC15	2009	FCRI	China	No
VĐ1	2010	RCRDC - FCRI	Taiwan	No
KL20-209	2011	RCRDC	V20-209	No
KLC266	2011	FCRI	CIP collection	Yes
KTB2	2011	ASINCV	K51/KB1	Yes
KTB1	2011	ASINCV	BV1/Japan	No
HNV1	2013	Thanh Tay University (Country of origin - China)		N/A
KQD1	2013	Thanh Tay University (Country of origin - China)		N/A
KLC3	2014	FCRI	HT3	No
VC6	2020	FCRI	VA1 x CIP68	Yes
VC7	2020	FCRI	194555.7 x KLC19	No
KTB6	2021	ASINCV	Chiêm dâu	No
VPJ1	2023	AGI		N/A
VPJ2	2023	AGI		N/A
KAGO-TN1	2023	PVFC		N/A
KL03	2023	FCRI	VC424 - 47	No

Note: Varieties are search from different sources, including research articles (Gatto et al. (2018)), database of Department of Crop Production – Ministry of Agriculture and Rural Development (<https://csdltrongtrot.mard.gov.vn/>), and other research institutes such as Field Crops Research Institute (<http://fcri.com.vn/>) and Vietnam Academy of Agricultural Sciences (<https://vaas.vn/vi/>).

Institute Abbreviations

ASINCV	Agriculture Science Institute of Northern Central Vietnam
AGI	Agricultural Genetics Institute
FCRI	Field Crops Research Institute
PVFC	Potato Vegetable & Flower Research Center
RCRDC	Root Crop Research and Development Center; Country of Origin - Taiwan

Potato Improved Varieties Released in Viet Nam, 2003-2023

Variety name	Year of release or first use	Institutional source of this variety	Pedigree 1	Pedigree 2 CIP-related or not
Afra	2004	Germany		N/A
Karsta	2004	Germany	Koretta x 3-74.562/3 N	No
Diamant	2006	NCFPT	Tulner/de Vries 54-30 x SVP 55-89	Yes
Solara	2006	NCFPT	Heidrun x Ebstorf 75 75	Yes
PO3	2007	IAS	Mother: Solanum tuberosum ssp. Andigena	Yes
Marabel	2008	NCFPT	Nena x MA 75 364	Yes
Eben	2008	FCRI	Potato clone CIP 385130	Yes
Atlantic	2008	IAS	Wauseon x B-5141.6(Lenape)	Yes
Espirit	2008	NCFPT	NA	Yes
Aladin	2011	FCRI	Bea x Verta	Yes
TK 96-1	2011	PVFC	NA	Yes
FL 2215	2013	IAS	NA	Yes
FL 2237	2013	IAS	NA	Yes
FL 2227	2013	IAS	NA	Yes
FL 2137	2013	IAS	NA	Yes
14	2013	IAS	NA	Yes
Sinora	2015	FCRI	Agria x AM 70-2166	Yes
KT5 (12KT3-1)	2017	FCRI	Germany	No
FL2027	2017	PepsiCo	NA	Yes
KT4	2018	FCRI	CIP	Yes
Rosa gold	2018	Fresh Studio, Holland	NA	Yes

Markie	2018	Import	NA	Yes
KT1	2019	FCRI	720091 x 385305.1	Yes
KT7 (4-170)	2019	FCRI	KT3 x 106	No
TK15.80	2019	IAS	Utatlan (07) (♀) × CIP10 (♂)	Yes
Atrice	2020	GVA	Clivia x 6430 1011	Yes
Doobak	2020	VAI (<i>Self announcement</i>)	NA	Yes
Esmee	2020	Fresh Studio, Holland (<i>Self announcement</i>)	NA	Yes
KT 4	2020	FCRI (<i>Self announcement</i>)	CIP	Yes
KT 5	2020	FCRI (<i>Self announcement</i>)	NA	Yes
KT6	2021	FCRI (<i>Self announcement</i>)	Solara x 47	Yes
Bliss	2021	VAI (<i>Self announcement</i>)	NA	Yes
Alouette	2021	Fresh Studio, Holland (<i>Self announcement</i>)	NA	Yes
Jelly	2021	FCRI (<i>Self announcement</i>)	Marabel x 173/87/4476	Yes
HCIP210	2023	HZPC and Vietpo Corporation (<i>Self announcement</i>)	NA	Yes

Note: Varieties are search from different sources, including database of Department of Crop Production – Ministry of Agriculture and Rural Development (<https://csdltrongtrot.mard.gov.vn/>), and Vietnam Academy of Agricultural Sciences (<https://vaas.vn/vi/>).

Institute Abbreviations

FCRI	Field Crops Research Institute
GVA	Growing Vietnam Agriculture
IAS	Institute of Agricultural Sciences for Southern Viet Nam
NCFPT	National Center of Plant Variety Evaluation
PVFC	Potato Vegetable Flower Center
VAI	Vietnam Agricultural Institute

Groundnut Improved Varieties Released in Viet Nam, 2003-2023

Variety name	Year of release or first use	Institutional source of this variety	Pedigree 1
L08	2004	AGI	Introduced from exotic
L12	2004	AGI	V79 x ICGV 87157
L18	2004	AGI	Introduced from exotic
MD7	2004	AGI	Introduced from exotic
MD9	2006	FCRI	FROM CHINA
MD9	2007	AGI	Introduced from exotic
L23	2008	AGI	Introduced from exotic
TB 25	2008		Introduced from exotic
GV3	2009	AGI	ICGV 95276 x Cuc nghe an
L20	2009	AGI	Sen Lai x FDR 36
LDH01	2009	AGI	Selected from LY a local variety.
TK10	2009	AGI	Introduced from exotic
TB25	2009	Thai Binh Seed Co.	
L26	2010	AGI	L08 x TQ 6
LDH04	2011	AGI	Tram dau 207 x 9905 (QD 9 X V79)
LDH06	2011	AGI	L18 x LVT
L32	2012	FCRI	TQ9 x 1001.3.1
GV 10	2013	AGI	LVT x GV 3
L33	2013	FCRI	TQ12X 1007.1.3
GV10	2013	IAS	GV3xLVT
TRAMDAU-207	2014	AGI	NA
VD-7	2014	AGI	NA
VD-10	2014	AGI	NA
L17	2016	AGI	L08 x TQ 6

Variety name	Year of release or first use	Institutional source of this variety	Pedigree 1
L27	2016	AGI	L18 x L16
L29	2019	FCRI	L18 X L16
LDH.09	2021	IAS	ICG20 x 9205-H1 (ICRISAT - India)
LDT3	2023	AGI	gamma (Cou') & 220 Gy on dry L27
TB29	2023	Thai Binh Seed Co.	
VD11	2023	IOOP	L23xVD99-2

Note: Varieties are search from different sources, including database of Department of Crop Production – Ministry of Agriculture and Rural Development (<https://csdltrongtrot.mard.gov.vn/>), and Vietnam Academy of Agricultural Sciences (<https://vaas.vn/vi/>).

Institute Abbreviations

AGI Agricultural Genetics Institute

FCRI Field Crops Research Institute

IAS Institute of Agricultural Sciences for Southern Viet Nam

IOOP Research Institute for Oil and Oil Plants

Annex G. Policy Contributions Plausibly Attributable to CGIAR Research (2003-2023)

Method

We adopt a broad view of what constitutes a policy outcome, by investigating councils, forums, platforms, working groups that *may* have led to policy outcomes.

These findings were compiled using a combination of desk review and interviews with stakeholders. Desk reviews consisted of gathering all possible sources of information: published literature, project reports, online communications from CGIAR centers and partners, government circular and directives. Relevant information extracted from these sources was reviewed and structured to document the topic and the influence exerted. In parallel, important stakeholders were identified and contacted, particularly in cases where the role played by the CGIAR center was unclear. Exchanges over emails and interviews were conducted with the objective of filling gaps and obtaining additional elements about the policy influence. We did not use standard interview guides, but instead looked for precise information and hints about the policy influence: questions and interview duration differed each time. In using stakeholder interviews, we took special care to disentangling facts from opinions.

The information that could be obtained is structured with a concise description of the outcome, the contribution of the CGIAR center, and any additional information that could be acquired. We acknowledge the limitations of this approach, which is intended to serve as a foundation for future research, rather than as a rigorous assessment.

Climate and GHG Mitigation Policies

Tools and Methodologies Help Identify Vietnam's Nationally Determined Contributions (NDC) to the Paris Agreement (2017-present)

Policy – The Climate Policy Hub (CPH), hosted by the CIAT regional office in Hanoi, Viet Nam, was launched in April 2017. The Hub aims to assist decision-makers in governments, businesses, and development and financing institutions with policy development and investment decisions related to climate change mitigation and adaptation. The CPH has developed tools and methodologies to help stakeholders design effective, cost-efficient, evidence-based climate strategies.

Contribution – Three publications have provided methodological advancements and potential options that were utilized in designing Vietnam's NDCs.

Escobar et al. (2019)¹ may have played a role in helping the Viet Nam Government refine ND mitigation commitments, costs and potential for the AFOLU sector, by providing marginal abatement costs and potential estimates using marginal abatement cost (MAC) curve methodology.

Giles et al. (2021)² identified 41 mitigation measures to reduce emissions in the agriculture, forestry and land use sector in Viet Nam. By analyzing the marginal cost of each measure, they demonstrated that if all 41 measures were implemented, 51 percent of Viet Nam's projected emissions in 2030 could be eliminated.

Additionally, Viet Nam's Climate Smart Agriculture (CSA) country profile³ served as an input for the 2020 updated NDC of Viet Nam. CSA country profiles provided each nation with a precise understanding of their vulnerability to climate change, along with the opportunities and capacity to adapt. These profiles indicated where and how agricultural production could be vulnerable, which climate-smart practices already existed within the country, and what was needed in terms of policy and investment support to scale-up these climate-smart practices.

Actions on GHG reductions⁴ which were endorsed in the 2020 updated NDC of Viet Nam and CGIAR-related include:

- Promote Alternative Wetting and Drying
- Promote NRMs: ICM, 3R3G, 1M5R
- Reduce field burning of rice straw from 90% to less than 30%: claimed by IRRI
- IRRI's assistance to expand low emission technologies (LET) which included straw management practices in Mekong River Delta (CCAFS, 2020). The practice is also stressed in training materials for Climate-smart Rice production by the National Agriculture Extension Center - NAEC (NAEC, 2019)
- Water-saving irrigation for coffee production.

¹ Escobar, C.D., Grosjean, G., Läderach, P., Nghia, T.D., Sander, B.O., McKinley, J., Sebastian, L. Tapasco, J. (2019). Reviewing Vietnam's Nationally Determined Contribution: A New Perspective Using the Marginal Cost of Abatement, *Frontiers in Sustainable Food Systems*, 3:14

² Giles, J.; Grosjean, G.; Le Coq, J.F.; Huber, B.; Le Bui, V.; Läderach, P. (2021) Barriers to implementing climate policies in agriculture: A case study from Viet Nam. *Frontiers in Sustainable Food Systems* 5: 439881 15 p. ISSN: 2571-581X

³ Nguyen, TTN.; Roehrig, F.; Grosjean, G.; Tran, DN.; Vu, TM. (2017) Climate Smart Agriculture in Vietnam. CSA Country Profiles for Asia Series. International Center for Tropical Agriculture (CIAT); The Food and Agriculture Organization. Hanoi, Viet Nam. 28 p.

⁴ CCAFS (2020) GHG mitigation in rice: From evidence-based concepts to adoption at scale. CCAFS. <https://ccafs.cgiar.org/research/projects/ghg-mitigation-rice-evidence-based-concepts-adoption-scale>

Lam Dong Provincial Government Decision No. 68/QĐ-UBND (01/2021) approving the green-growth action plan (GGAP) of Lam Dong province (2021 – 2030)⁵

Policy – The Prime Minister of Viet Nam issued Decision 403/QĐ-TTg on March 20, 2014, approving the National Green Growth Action Plan (GGAP) for the period 2014-2020. The National GGAP required provincial authorities to develop their own provincial GGAP. Lam Dong Province started developing its GGAP in December 2017 and became the 32nd province to construct its own GGAP plan. The Lam Dong Provincial Government issued Decision No 68/QĐ-UBND on January 12, 2021, approving the GGAP of Lam Dong province for the period 2021-2030.

Contribution – The Viet Nam team of World Agroforestry (ICRAF) provided technical assistance to the province government and published a Technical Report named Green Growth Action Plan for Lam Dong Province for the Period of 2021 – 2030, Vision to 2050 in September 2019.

The team used the Land-Use Planning for Multiple Environmental Services (LUMENS) framework which can model ecological and economic processes, to assess the impacts of various measures in all assessed sectors (except energy that uses other tool), and use this as the basis for developing the green-growth action plan for Lam Dong. In the Technical Report, ICRAF presented two scenarios and their impact on ecosystem services and provincial economy. The Report proposed nine green growth (GG) orientations for Lam Dong, covering all districts in the province. The nine orientations include: Promoting renewable energy and saving; Control of greenhouse gas emissions for all sectors including land use change and cover; Waste control and reuse for greener production; Promote sustainable and climate-smart land-use systems; Conserve water, resources, nature and biodiversity; Improve the quality and market access of administrative aspects; Build a green and sustainable tourism industry; Promote green lifestyle and sustainable consumption; Create a favorable environment for the transformation to a green economy.

The role of ICRAF in providing technical assistance was acknowledged in the official website of the Lam Dong province

Forestry and Agroforestry

Decrees 05/NĐ-CP and 99/NĐ-CP Implementing the Payments for Forest Ecosystem Services (PFES) in Vietnam (2008-today)

Policy – In 2008, Viet Nam became the first Asian country to officially launch the Payments for Forest Environmental Services (PFES) policy (Decree 05/NĐ-CP dated January 14,

⁵ Lam Dong province (2022). <https://lamdong.gov.vn/HOME/TANGTRUONGXANH/SitePages/tong-quan.aspx> [Accessed on 9/02/2022]

2008). It implemented it nationwide in 2010 (Decree 99/NĐ-CP dated 24 Sep 2010). In total, 20 legal instruments provide the regulatory basis for PFES.

Contribution – The Rewarding the Upland Poor in Asia for Environmental Services They Provide (RUPES, 2002-2005) project can be considered as the first PFES-like initiative in Viet Nam. Coordinated by ICRAF, RUPES developed a mechanism to provide incentives/rewards to upland farmers, encouraging them to maintain existing sustainable land-use practices and to adopt new/improved practices that could result in greater environmental benefits. Such rewards mechanisms also allowed them to shift away from environmentally harmful land uses and contribute to poverty alleviation in upland areas. RUPES identified the need and tried to design instruments that connect actual environmental service ‘buyers’ to real ‘suppliers’, instead of offering subsidies to ‘suppliers’ using public budget.

Among the 20 legal instruments that provide the regulatory basis for PFES, several can be linked to the consultation with CIFOR: Circular 80/2011/TT-BNNPTNT; Circular 60/2012/TT-BNNPTNT; Circular 85/2012/TT-BTC; Circular 20/2012/TT-BNNPTNT. These strengthened the legal framework for PFES by increasing payment levels, emphasizing the need for better M&E; allowing for an increase in PFES payments to cover the labor costs of forest owners, and addressing delayed PFES payments.

In 2013, CIFOR supported MARD and The Vietnam Forest Protection and Development Fund (VNFF) to assess PFES implementation for the period 2008–2012. CIFOR's report, ‘Payments for Forest Environmental Services in Vietnam: From Policy to Practice’ (Pham et al., 2013)⁶ was the first independent scientific impact assessment of PFES which highlighted a lack of M&E concerning the PFES scheme. In 2016, the M&E framework co-developed by CIFOR and Winrock International has been piloted in Son La province, then expanded to several other provinces. Multiple CIFOR's proposed and piloted indicators are included in the VNFF's current M&E guiding handbook for the provincial office of Forest Protection and Development Fund.

Decision 523/QĐ-TTg on Viet Nam Forestry Development Strategy for period 2021–2030 and a vision to 2050

Policy – On April 1, 2021, the Prime Minister issued Decision 523/QĐ-TTg to approve the "Vietnam Forestry Development Strategy for period 2021–2030 and a vision to 2050"

Contribution – In Jan 2020, CIFOR, in collaboration with the Vietnam Administration of Forestry (VNFOREST - MARD), published a report named Vietnam Forestry Development Strategy - Implementation Results for 2006–2020 and Recommendations for the 2021–

⁶ Pham, T.T., Bennett, K., Vu, T.P., Brunner, J., Le, N.D., Nguyen, D.T. 2013. Payments for forest environmental services in Vietnam: from policy to practice. CIFOR Occasional Paper No. 93. Bogor, Indonesia: Center for International Forestry Research (CIFOR). <http://dx.doi.org/10.17528/cifor/004247>

2030 Strategy. The report aims to assess the results of the implementation of the VFDS 2006–2020, to analyze the achievements as well as the shortcomings, limitations and causes, drawing lessons learned as a basis for proposing and recommending issues to be considered and solved in the development of the VFDS for 2021–2030, with a vision to 2050.

The report served as the most important input for the official MARD's report of "Vietnam Forestry Development Strategy for period 2006–2020 and a vision to 2050", which was submitted to The Government in Sep 2020. The CIFOR's reviews of implementation results for 2006–2020 and recommendations for the 2021–2030 strategy suggested in CIFOR's report were taken into account in MARD's official strategy.

Adoption of the ASEAN Guidelines for Agroforestry Development (2018)

Policy – The ASEAN Guidelines for Agroforestry Development⁷ outlines 14 principles accompanied by 74 guidelines and five implementation considerations. These guidelines were adopted by ASEAN Ministers on Agriculture and Forestry (AMAF) in October 2018. They provide technical support to ASEAN Member States pursuing agroforestry development.

Contribution – Over the Support to the ASEAN-Swiss Partnership on Social Forestry and Climate Change Phase (ASFCCA) projects, ICRAF and CIFOR have worked toward the development of a social-forestry policy framework for Viet Nam and other ASEAN member states. Projects have also reinforced the capacity of the ASEAN Social Forestry Network, the main partner. The ASEAN Guidelines for Agroforestry Development endorsed in 2018 were an output of the ASFCC projects.

Catacutan et al. (2017)⁸ is part of the manual appendix. The white paper highlights the evolving concepts of agroforestry, agroforestry practices adopted in Southeast Asia, and contributions to food security, income, water regulation, climate change adaptation and mitigation.

Other – Since 2018, Viet Nam has developed and proposed forestry related policies such as Vietnam Forestry Development Strategy for 2021–2030 and a vision to 2050 (published in Apr 2021), and the Forest Development and Protection Investment Policy (proposed in May 2021). However, those did not mention clear targets or solutions for the development of

⁷ [ASEAN] Association of Southeast Asian Nations. 2018. ASEAN Guidelines for Agroforestry Development. Authors: Catacutan DC, Finlayson RF, Gassner A, Perdana A, Lusiana B, Leimona B, Simelton E, Öborn I, Galudra G, Roshetko JM, Vaast P, Mulia R, Lasco RL, Dewi S, Borelli S, Yasmi Y. Jakarta, Indonesia: ASEAN Secretariat.

⁸ Catacutan, D., Van Noordwijk, M., Nguyen, T., Öborn, I. & Mercado, A. 2017. Agroforestry: contribution to food security and climate change adaptation and mitigation in Southeast Asia. White Paper. Bogor, Indonesia: World Agroforestry Centre (ICRAF) Southeast Asia Regional

agroforestry in Viet Nam. Although there have been international development projects on AF performed by MARD (funded by ACIAR, JICA), Viet Nam has no specific policy support for agroforestry development as of yet. According to Mr Nguyễn Tiến Định (2019) - IPSARD, the separation of forestry and agriculture as two distinct areas has made agroforestry fall into a policy gap of these sectors.

Besides, the Viet Nam Agroforestry Working Group formed under the Decision 2477 in 2016 seems have had no significant activities. Decision 2477 and AFWG's activities could not be found online. Only ICRAF-sourced news on the Viet Nam AF Working Group can be found.

Identification of the Contribution of Agroforestry in the Viet Nam NDC (2018-2020)

Policy – Viet Nam's nationally determined contributions.⁹ The revised NDC only specifies the purpose of agroforestry measure, as for “enhancing carbon stocks and conserving lands, without elaboration on activities and associated mitigation or adaptation targets” (Mulia et al., 2020)¹⁰.

Contribution – In Dec 2018, ICRAF Viet Nam published a project report named Potential Mitigation Contribution from Agroforestry to Viet Nam's NDC (Mulia et al., 2018). The report presented two approaches to measurement and reporting of agroforestry, based on potential expansion domain (PED) of main agroforestry systems in different regions across the country and the spatial distribution of trees outside forests (TOF), to estimate the potential mitigation contribution from agroforestry, represented by total aboveground carbon (C) sequestration at the national scale. The research team informed us that they would report their estimation of potential mitigation contribution from AF to MARD which has the mandate to revise the potential mitigation contribution from the Agriculture and Land Use, Land Use Change, and Forestry sector to the NDC.

Spatial Characterized Agroforestry (SCAF) online database (2013-2014)

Data product – The SCAF database was developed by the World Agroforestry Centre Viet Nam, in collaboration with six Vietnamese universities across different regions, and was financially supported by the Swiss Agency for Development and Cooperation through ICRAF's support to the ASEAN-Swiss Partnership on Social Forestry and Climate Change Phase II (ASFCC-II). This was the first initiative to document agroforestry at the national

⁹ The Socialist Republic of Viet Nam (2020). Updated Nationally Determined Contribution (NDC). Hanoi:Vietnam

¹⁰ Mulia, R.; Nguyen, D.D.; Nguyen, M.P.; Steward, P.; Pham, V.T.; Le, H.A.; Rosenstock, T.; Simelton, E. Enhancing Vietnam's Nationally Determined Contribution with Mitigation Targets for Agroforestry: A Technical and Economic Estimate. *Land* 2020, 9, 528. <https://doi.org/10.3390/land9120528>

level. The database provides information about the geographical location, biophysical, and socio-economic characteristics of 48 agroforestry systems spread across 42 provinces in Viet Nam during 2013–2014. It characterizes the dominant agroforestry systems covering at least 100 ha in each province.

Contribution – The database was used as an input data for a study of ICRAF's researchers named Enhancing Vietnam's Nationally Determined Contribution with Mitigation Targets for Agroforestry: A Technical and Economic Estimate (Mulia et al., 2020).

Other – It seems that the database has not been updated since 2014. According to Mulia et al. (2020), at the time of their paper publication in December 2020, there was no more recent database than SCAF for existing agroforestry systems in Viet Nam.

Decisions 2477/QD-BNN-HTQT (2016) and 3753/QD-BNN-HTQT (2021) Structuring the National Agroforestry Working Group (2016- today)

Policy – The Agroforestry Technical Working Group (AF-TWG) was established under Decision 2477/QD-BNN-HTQT on June 20, 2016, and subsequently restructured under Decision 3753/QD-BNN-HTQT on September 10, 2021 by the MARD Minister. The director of the Department of Crop Production (DCP), Mr. Nguyen Nhu Cuong, was assigned as the leader of AF-TWG. The two deputy leaders of AF-TWG are the Deputy Director-General of the Viet Nam Administration of Forestry (VNFOREST) and the Country Coordinator of ICRAF Viet Nam. AF-TWG members come from various national and international agencies and research institutes.

Contribution – ICRAF country representative is a deputy leader of AF-TWG. A kick-off meeting of the AF-TWG took place on December 24, 2021, conducted both online and face-to-face, at the DCP office. During this meeting, members discussed the terms of references for each participating agency and agreed to develop a national plan for agroforestry development over the next five years. The plan provided direction and guidance for sustainable agroforestry development across different provinces.

Other – It seems that the Viet Nam AF Working Group formed under Decision 2477 had no significant activities. The Decision 2477 and AFWG - related information could not be found in Vietnamese or from MARD-related sources of information. Only ICRAF-sourced news on the Viet Nam AF Working Group can be found.

Water and Environmental Management

Change in Sluice Gate Operations for Managing Salinity in the Delta (2003-today)

Policy – In 1997, a national policy named Freshwatering to the Ca Mau Peninsula aimed to encourage farmers to grow two or three rice crops a year. In Bac Lieu province alone, thousands of fallow land hectares were inefficiently productive due to low-lying, saline alum in the western districts. In 2001, the People's Committee of Bac Lieu province decided to convert 75,000 hectares of unproductive rice land to aquaculture. Bac Lieu and Soc Trang provinces have mutually exclusive preferred ranges of salinity and saltwater intrusion damage farmers' production in some districts. Since then, disputes between shrimp farmers and rice growers have occurred. In 2001, shrimp farmers in the province broke a major dam after being denied access to the saltwater.

Contribution – Scientists from IWMI, IRRI and WorldFish reviewed land and water use policies, talked with rice growers, shrimp farmers and water managers, and revised the land-use plan with provincial and national authorities. Considering farmers' preferences, soil characteristics and the 'anticipated' water quality, the team delineated six zones with the corresponding land uses, cropping calendars and salinity requirements. Once the land-use zones were established, the researchers used a mathematical model that simulated hydraulic conditions to work out and test the optimal operation of sluice gates needed to maintain the correct water quality as required in each zone throughout the year. In 2003, they began testing different operational procedures. The research team claimed that "During 2003 and 2004, a few conflicts still arose when saline water occasionally flowed into rice paddies or freshwater affected shrimp farming, but from 2005 onwards the control was much better", and the sluice gate operation program has been successful in allowing rice and shrimp farmers to conduct their activities in a coordinated fashion.¹¹

The change helped defuse tensions between the shrimp and rice industries in the Delta who have mutually exclusive preferred ranges of salinity. There was a further claim that ecosystem service provision in the Delta improved following the change in operation – a potential unquantified positive environmental benefit from policy research. An assessment was conducted in 2010.

Other – In the years following the change in sluice gates timing, an irrigation system was built to separate saltwater from freshwater along the Quan Lo Phung Hiep canal. In 2009, MARD Minister approved the irrigation construction planning for the South of Ca Mau Peninsula by Decision 1336/ QĐ-BNN-KH. One of the objectives was to supplement the irrigation system to supply saltwater for aquaculture in coastal areas and harmonize freshwater and saltwater separation in the Quan Lo - Phung Hiep area. MARD Minister issued Decision 1332/QĐ-BNN-TCTL on March 13, 2021 on the Operation Process of Quan Lo - Phung Hiep Irrigation System.

¹¹ Wichelns, D., Hoanh, C.T., Dung, L.C., Phong, N.D. (2010). Estimating the Value of Improvements in Environmental Quality Due to Changes in Sluice Gate Operations in Bac Lieu Province, Viet Nam. IWMI, Colombo, Sri Lanka.

The Mekong Dams Observatory and Database (2011-2018)

Data product – Over 8 years (2011-2018) the CGIAR Research Program on Water, Land and Ecosystems (WLE) in the Greater Mekong has compiled and maintained a geospatial dataset of all existing dams, including 594 completed, 136 planned, and 44 under construction in the Irrawaddy, Mekong, Red and Salween river basins. This ‘Dams Observatory’ tracked all hydropower dams that are larger than 15 megawatts installed capacity, and/or those with a reservoir area of 0.5km² or larger. Characteristics such as height, length, reservoir volume, and the purpose of the dam are also recorded.¹²

Contribution – This database has been used for research and policies, including:
1) The Mekong River Commission (MRC) cited the data in its 2021 – 2030 Basin Development Strategy & Mekong River Commission Strategic Plan 2021-2025
2) The SERVIR-Mekong program used to spatially predict the inundation area of prospective dams in the Irrawaddy, Salween, Mekong, and Red River basins (Aekakkararungroj et al., 2020)¹³.

The Greater Mekong Forum on Water, Food and Energy (2015-18)

Forum – The Greater Mekong Forum on Water, Food and Energy was hosted annually from 2015 to 2018 by IWMI-WLE CRP. The forums welcomed 300 to 430 participants each year, representing the research community, civil society, governments and the private sector. Vietnamese delegates were from government agencies (MONRE - Ministry of Natural Resources and Environment), institutes such as the Vietnam Academy of Water Resources (VAWR), Institutes of Water and Environment (IWE), Hydraulic Construction Institute and Thuyloi University (TLU).

These were regional knowledge-sharing events in the Greater Mekong Region. Through the forum, the WLE CRP aimed at (a) reducing tensions in water-related discussions; (b) creating ‘safe’, non-political spaces for stakeholders to discuss water-related issues informally; (c) promoting cross-regional learning on issues related to the water-food-energy nexus, and networking; (d) interfacing research-based solutions with a non-technical public, policymakers and the private sector.

¹² Open Development Mekong (2021). <https://data.opendevlopmentmekong.net/en/dataset/mekong-regional-hydropower-dams-2020?type=dataset>. [Accessed on 10.02.2022]

¹³ Aekakkararungroj, A., Chishtie, F., Poortinga, A., Mehmood, H., Anderson, E., Munroe, T., ... & Saah, D. (2020). A publicly available GIS-based web platform for reservoir inundation mapping in the lower Mekong region. *Environmental Modelling & Software*, 123, 104552.

Decision No. 1383/QĐ-TTg on the Implementation of National Water Accounting (2020)

Policy – The Water Accounting (WA) is a framework tracking a set of indicators which has been developed originally by David Molden (IWMI) and upgraded with inputs from the Delft University of Technology. WA is a strategic issue for Viet Nam as 75% of water comes from outside country. The WA methodology is based on a water balance approach which considers inflows and outflows at three levels, including (i) macro level - national, basin or subbasin, (ii) mezzo level - water services (such as irrigation or municipal water service), and (iii) micro level: water use or final consumption - such as an agricultural field, a household, or an environmental use (Molden, 1997)¹⁴.

At the end of 2020, the MONRE Department of Water Resources Management (DWRM) planned to propose a national project to do macro-level WA to the Government. On August 4, 2021, The Prime Minister promulgated Decision No. 1383/2021/QĐ-TTg approving the implementation of national water accounting until 2025. The project targeted WA for all inter-province river basins and the whole country and plan to publish data for the first time in 2025.

Contribution – The concept of water accounting was first introduced in Viet Nam in 2013, under an ADB project (IWMI, NAWAPI and IWRP). Water accounts were determined for all 16 Viet Nam major river basins and served as inputs of the Asian Water Development Outlook, one of the most comprehensive water reviews of all 49 countries in Asia (ABD, 2013)¹⁵.

In 2014, WLE granted a project (named MK27) to a consortium of IWMI and UNESCO IHE related to the water accounts of the Day River Basin, a subbasin of the Red River Delta. A research paper was published on 2016, concluded that monthly storage changes, multi-annual streamflow and water yield per land use/land cover (LULC) type in the Red River Basin can be successfully assessed based on currently available global satellite-derived products (Simons et al., 2016).¹⁶

In 2015, The USAID funded Viet Nam Forest and Delta project contracted UNESCO-IHE to assist them with the analysis of the water accounts for the Ca River Basin in Viet Nam. Ca River Basin Committee capacity has been improved and WA toolkits has been tested and/or adopted (Winrock, 2021).¹⁷

In 2015, Mr. Ha Thanh Lan from the Institute of Water Resources Planning (MARD), a PhD candidate, published a case study also for the Day River Basin, demonstrating the capability

¹⁴ Molden, D. 1997. Accounting for water use and productivity. SWIM Paper 1. Colombo, Sri. Lanka: International Irrigation Management Institute.

¹⁵ www.adb.org/publications/asian-water-development-outlook-2013

¹⁶ Simons G, Bastiaanssen W, Ngô LA, Hain CR, Anderson M, Senay G. Integrating Global Satellite-Derived Data Products as a Pre-Analysis for Hydrological Modelling Studies: A Case Study for the Red River Basin. *Remote Sensing*. 2016; 8(4):279. <https://doi.org/10.3390/rs8040279>

¹⁷ https://winrock.org/wp-content/uploads/2021/06/VFD-final-report_distribution.pdf

of the SWAT model to obtain a spatial and accurate simulation of eco-hydrological processes which are related to water accounts.

In 2020, an online Regional Consultation Workshop on the Implementation of WA was organized by the MRC Secretariat with the participation of MRC member countries and IWMI experts. The Vietnamese delegation included representatives of the following organizations: Standing Office of Vietnam Mekong River Commission, DWRM, Institute of Water Resources Science, Institute of Irrigation Planning, Institute of Planning Southern Irrigation, Southern Institute of Irrigation Science, Southern Regional Hydrometeorological Station.

Other – The WA data collection methods, data displays, terminologies used are under development and it is not clear whether IWMI's methodology will be used, though the proposed indicators include inflow and outflow of basin water.

Decision No. 64/2014/QĐ-TTg (2014) on the Organization of Resettlements for Hydropower Dam Projects influenced by the World Commission on Dams (WCD) (1997-2001)

Policy – WCD was a global multi-stakeholder body initiated in 1997 by the World Bank and the World Conservation Union (IUCN) in response to growing opposition to large dam projects. The Commission had a mandate to review the development effectiveness of large dams and develop internationally acceptable guidelines for dams' planning, construction, and operation. IWMI was among the 68 members.

Article 6. of 2013 Water Resources Law regulated that "organizations and individuals investing in projects related to the use of water resources or discharge of wastewater into water resources that greatly affect production and people's lives in the locality, have to coordinate with local authorities in collecting opinions of people in the community and submit a synthesized report (together with other project's dossier) to authority for investment decision. On November 18, 2014, the Prime Minister issued Decision No. 64/2014/QĐ-TTg on policies of migration and resettlement of irrigation and hydropower dam projects.

Contribution– In the WCD final report completed in 2000, ten key recommendations were highlighted. The recommendations regarding to resettlement and public participation was possibly new to the field of dam construction and water management in Viet Nam at that time (WCD, 2000).¹⁸

In 2002, a Citizens' Guide to the World Commission on Dams was published by International Rivers Network. The guide was intended as a tool for people in their struggles for social justice and environmental protection¹⁹. In 2006, the guide was translated into

¹⁸ Citation here

¹⁹ <https://archive.internationalrivers.org/resources/dams-and-development-a-new-framework-for-decision-making-3939>

Vietnamese by the Vietnam Center of Water Resources Conservation and Development (Warecod). In the guide, a call was endorsed by 109 NGOs from 39 countries to public financial institutions for comprehensive adoption of the recommendations in funding large dams.

According to Nga Dao (2010)²⁰ in the review of Dam Development in Vietnam: The Evolution of Dam-Induced-Resettlement Policy, Viet Nam was revising its resettlement policies to meet international standards. The research compared a dam built in the 1970s-80s with one under construction then (Son La Hydropower dam, began in 2005 and completed in 2012) and showed that improvements in policy possibly brought limited improvements in dam development planning and practices to Viet Nam.

Companion Modelling Approach to Identify Resource-sharing Scenarios between Actors (ComMod)

Policy – Companion modelling (ComMod) approach utilizes participatory tools to generate a shared understanding of the problem among stakeholders and explores new resource-sharing scenarios identified by them (Bousquet et al., 2005).²¹

Contribution – In 2005, CPWF-funded Project Number 25 (PN25), entitled Companion Modelling for Resilient Water Management: Stakeholders' Perceptions of Water Dynamics and Collective Learning at Catchment Scale, was implemented by IWMI from 2006 to 2010. PN25 dealt with conflicts regarding access to water among farmers and villages in Bhutan, Thailand and Mekong Delta, Viet Nam (CPWF PN25 Project Report, 2010).

Two successive Role-Playing Game (RPG) sessions and a RiceShrimpMD Agent-Based Model (ABM) in ComMod approach involved local stakeholders in Bac Lieu coastal province, Viet Nam, from 2006-2009. Lessons learned from the RPGs and five-year simulation results of the RiceShrimpMD ABM showed how conflict occurred, and the ComMod approach was an appropriate methodology for opening opportunities to all relevant stakeholders to share their knowledge of water demand, enhancing better understanding of and collaboration on water management issues for sustainable development. Results also showed that ComMod worked better when a supporting community-based resource management policy was in place.

In Viet Nam, except for the pilot in Bac Lieu province under the PN25 Project, the ComMod approach has not been found in other community-based water resource management policies.

²⁰ Dao, Nga. (2010). Dam Development in Vietnam: The Evolution of Dam-Induced Resettlement Policy. Water Alternatives. 3.

²¹ Bousquet F, Trébuil G, Hardy B, editors. 2005. Companion modelling and multi-agent systems for integrated natural resource management in Asia. Los Baños (Philippines): International Rice Research Institute & Cirad. Introduction, 1-20.

Nutrition and Health

Agriculture, Nutrition and Health (ANH) Academy

Policy – The Agriculture, Nutrition and Health (ANH) Academy is a global community of interdisciplinary researchers, practitioners, and policymakers working on agriculture and food systems for improved nutrition and health, with over 4,400 members from 145 countries and 63% of members from Africa or Asia. The ANH Academy is co-funded with UK Aid from the UK government and the Bill & Melinda Gates Foundation. Led by the London School of Tropical Hygiene and Medicine (LSHTM), the ANH Academy's founding partners are the London Centre for Integrative Research on Agriculture and Health (LCIRAH), IMMANA, and the A4NH CRP.

ANH Academy hosts the Annual ANH Academy Week, where hundreds of Academy members meet for learning labs and an interdisciplinary research conference. Some of the CIAT researchers have participated in the ANH Academy Week. In 2018, Elise Talsma (Wageningen University) and Diana Carolina Lopera (CIAT), two members of the CIAT team awardee of one of the IMMANA grants, took part in the 3rd Annual ANH Academy Week, in Accra, Ghana, from 25 to 29 June.

Contribution – ANH events have been jointly funded by the A4NH CRP. CIAT researchers are among ANH Academy interdisciplinary researchers, contributing to the literature on agriculture and food systems for improved nutrition and health.

Contributions to the Zero Hunger National Action Program (NAP, 2018-25) framework and monitoring

Policy – The Zero Hunger NAP is an UN-led initiative launched in 2012. The program was launched by Vietnamese Prime Minister Nguyen Xuan Phuc in June 2018. Under this program, the Vietnamese government has committed to reducing stunting to under 20%, malnutrition to under 5%, increasing smallholder yield by 10% and eliminating food waste

Contribution – A4NH researchers have been members of the Zero Hunger NAP, technically supporting it with notable influence on (1) its framework and (2) monitoring.

(1) A4NH researchers contributed to the project guidelines on applying a nutrition-sensitive approach. Published in CGIAR (2021),²² these guidelines were approved by MARD for 2020-25 and used in training material for the Zero Hunger NAP. The food system

²² CGIAR Research Program on Agriculture for Nutrition and Health (A4NH). 2021. Conceptual framework for food systems for diets and nutrition: Country food system fact sheet: Viet Nam. Washington, DC: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.134255>

framework highlights the multidimensional nature of complex food system: agricultural production, the food environment, and their links to nutrition and health. The Zero Hunger Initiative expressed interest in using CIAT research outputs of the Entry points to Advance Transitions towards Sustainable diets (EATS, 2017-2020) project to support the planning of their interventions.

(2) A4NH researchers have mapped Food system indicators along the five objectives of the programme, and have proposed a method for collecting food system data. Focused on the 1,000 poorest communes in VN, the approach takes stocks of existing data sources (including the VHLSS 2016, Rural Agricultural and Fishery Census (2016) and the Nutrition Surveillance Survey (2015) and collects additional data in three communes in Tra Vinh, Quang Ngai and Lao Cai provinces.

Other – Currently (Sep 2021), the Zero Hunger Office has not developed a website to show the monitoring progress toward the NAP Zero Hunger goals. No M&E framework or food system indicators link to the NAP Zero Hunger Initiative to support the planning of their interventions was found online.

In the report of FAO's project coded TCP/VIE/3604 and named Policy-based Support to Agriculture Production in Line with New Rural Development, Sustainable Poverty Reduction and Zero Hunger Initiative of Vietnam, implemented from 5/2017-12/2019, FAO mentioned primary data collection of direct surveys in three provinces. However, the tools for surveying and formulating quick-impact projects were not made available, particularly the indicators for nutrition assessments.

2018 - working paper entitled Food Safety Metrics Relevant to Low- and Middle-income Countries. The report discussed measures and metrics for food safety which were grouped into three groups: (1) Food safety standards, (2) Foodborne disease outcome, and (3) Food safety performance.

Livestock and Human Health

Decision No. 50/2014/QĐ-TTg dated September 04, 2014, policies on subsidies for improvements in farmer household animal husbandry in 2015 – 2020 period

Policy - Decision 50/2014/QĐ-TTg was issued by the Prime Minister in Sep 2014 to strengthen the efficiency and competitiveness of smallholder livestock producers during 2015-2020 through supports in livestock artificial insemination and breeding, and manure treatment (100% of the expenses for artificial insemination in hogs and cattle; 50% of the costs for the purchase of breeding hogs and cattle for farming households in areas facing challenging socio-economic conditions; 50% of the cost for biogas construction covered). This is a noticeable shift of government focus, from large scale farms to smallholder producers. To be eligible for subsidies, farmers must be a smallholder with fewer than ten

pigs, buffalo, or cows for artificial insemination coverage. Additionally, those with fewer than 5 sows/10 flatterers, or 3 buffalo or cows qualify for biogas construction subsidies.

Contribution – The previous National Strategy on Animal Breeding Development (Decree 10/2008/QD-TTg issued in January 2008) focused on large-scale, commercial farms and industrial production. Insights from ILRI research have provided different policy recommendations and implications. Three notable outputs include:

i) In 2010, Minot et al. ²³simulated the Vietnam Pig Sector Model (VPM), using the consumer and producer equilibrium prices in the urban and rural markets of all seven regions in Viet Nam. They indicated that the modern large-scale pig sector is growing rapidly due to rising income, urbanization and the proliferation of supermarkets. However, it remains small, with about 5% of pig production coming from growers owning more than 100 pigs. Under all considered scenarios, the traditional small-scale pig sector continues to grow over the next decade and beyond.

ii) Also in 2010, ILRI (in collaboration with ACIAR, IPSARD CAP, IFPRI, Oxfam and the Australian University of Queensland) produced a policy brief on Improving the Competitiveness of Pig Producers in Viet Nam. The brief's critical implication was that the pro-poor livestock policy could enhance competitiveness to facilitate the inclusion of smallholders in the fresh meat supply chain.

iii) In 2014, researchers from the MARD IPSARD Center for Agriculture Policy (CAP) collaborated with ILRI to update the VPM. They concluded that the modern pig sector would remain small, accounting for only 4-8% of pig production, over the next ten years. Findings from Que et al. (2018)²⁴ highlighted that the modern large-scale sector is not a threat for traditional small-scale sectors; thus there is unnecessary to protect smallholder pig farmers in the coming decade. Nonetheless, the Government should support small-scale producers in their efforts toward modernization (technology), food safety improvement and animal disease control.

Other - In June 2021, MARD conducted a national online conference to summarize the implementation of policies under Decision 50/2014/QD-TTg and propose new support policies for 2021-2025. The meeting informed that the supportive policies under Decision 50/2014/QD-TTg, which focused on quality and value and food safety, have positively influenced the lives of millions of livestock farming households in rural areas. MARD Vice Minister Phung Duc Tien, stressed that in the Viet Nam National Livestock Development Strategy for the period 2021-2030 with a vision to 2045 (approved by the Prime Minister under the Decision No. 1520/QD-TTg dated 10 Jun 2020), parallel with the promotion of modern large-scale farming, it is as necessary to pay attention to traditional livestock production. MARD is expected to propose new policies to support smallholder livestock farmers towards sustainable and effective production.

²³ Minot, N. 2010. Future scenarios for pig sector development in Vietnam: Results from a policy simulation model. Improving the Competitiveness of Pig Producers in Viet Nam Project Brief 6. Nairobi, Kenya: ILRI

²⁴ Nguyen Ngoc Que and Rich, K.M. 2018. Vietnam pig model 2018. Source code. Hanoi, Vietnam: ILRI.

Decision No. 5273/QD-BNN-HTQT on the National Viet Nam One Health Strategic Plan (OHSP) for Zoonotic Diseases (2016-2025)

Policy – Under the One Health partnership (OHP), the National Viet Nam One Health Strategic Plan (OHSP) for Zoonotic Diseases was developed by MARD and MOH and issued according to MARD's Decision No. 5273/QD-BNN-HTQT dated December 19, 2016.

Contribution – ILRI is one of the active institutional members of the Vietnamese Government's One Health Partnership (OHP) for Zoonoses. The official website of OHP can be found at <https://onehealth.org.vn/>. The role of ILRI in "undertaking appropriate research to fill gaps in the application of One Health approaches to policy and practice including research on specific diseases" was highlighted in the OHSP. Specifically, two studies (out of 61) listed in the Matrix of OH Programmes and Projects in Viet Nam having ILRI as the implementing partner. These are Reducing Disease Risks and Improving Food Safety in Smallholder Pig Value Chains in Vietnam (PigRisk) and Study of Hygienic Practices of Small-scale Poultry Slaughter Houses in Asian Partnership Countries.

The second phase of OHP, which aims to strengthen ongoing work in controlling zoonotic diseases and diseases transmitted from animals to humans, was officially launched in Hanoi on March 23. This phase will run from 2021 to 2025. ILRI remains an active stakeholder in the partnership.

Generally speaking, the overall approach in Viet Nam has progressively evolved from a single-disease focus towards long-term One Health approach that recognizes the interconnections between the health of people, animals, and their shared environment. Previous programs that have paved the way to the OHSP include the Partnership on Avian and Human Influenza (PAHI) within the framework of the National Integrated Operational Program on Avian and Human Influenza (OPI), 2006-2010, and the National Integrated Operational Program on Avian Influenza, Pandemic Preparedness and Emerging Infectious Diseases (AIPED), 2011-2015.

Viet Nam Taskforce for Food Safety Risk Assessment (2012-today)

Taskforce – The Viet Nam National Taskforce for Risk Assessment in Food Safety Management was set up in 2013 with the aim of developing the capacity of decision-makers and national researchers in Viet Nam to use risk-based approaches for food safety management. The Taskforce united policymakers and researchers from the Ministry of Health (MOH), the Ministry of Agriculture and Rural Development (MARD), and key research institutes and universities in Viet Nam (Hanoi School of Public Health National, Institute of Nutrition, National Institute of Hygiene and Epidemiology, National Institution for Food Control, HCMC Institute of Public Health, Vietnam National University of Agriculture, National Institution of Veterinary, Vietnam Rakuno Gakuen University, Japan Swiss Tropical and Public Health Institute). The Taskforce was based at the Center for

Public Health and Ecosystem Research (CENPHER) at the Hanoi School of Public Health.

Influence – A taskforce member, ILRI, alongside the Swiss Development Cooperation (SDC), funded the taskforce’s regular events and risk assessment case studies. ILRI chaired the FSWG from July 2019 to July 2021.

The Taskforce research outputs include: (1) a special issue of risk assessment in the Vietnam Journal of Preventive Medicine; (2) a policy brief on risk-based approaches to food safety, (3) conducted training courses on risk assessment, (4) conducted case studies on risk assessment related to vegetables and fish grown and caught in wastewater, ready-to-eat vegetable and noodle soup, and antibiotic residues in pork, (5) two risk assessment guidelines on food safety related to biological and chemical hazards.

In 2017, ILRI and the Taskforce led the technical work of the WB critical report on Vietnam Food Safety Risks Management: Challenges and Opportunities following the government's request for an assessment of prevailing food safety risks in Viet Nam to generate evidence and draw lessons. This landmark report was endorsed by the Deputy Prime Minister, paving the way to a risk-based approach and risk communication.

Other - The Taskforce planned to become a technical working group nationally recognized by the MOH and the MARD. However, in 2015, a higher-level Food Safety Working Group (FSWG) was established at the request of and convened under Deputy Prime Minister Vu Duc Dam. The FSWG was an initiative to bring key Government Agencies/Line ministries and development partners (DPs) together for joint policy dialogue and discussions on food safety issues in Viet Nam. Members of the Taskforce are also members of the FSWG.

Viet Nam Government Embraces a Risk-based Approach to Food Safety management (2017)

Report – The Viet Nam Government requested assistance from the World Bank and other development partners in assessing food safety risks and providing policy recommendations for improving food safety risk management. A series of activities, including a literature review, field visits, round-table discussions and interviews with experts and consultations, were held between January and July 2016. In 2017, with the technical assistance of ILRI and the National Food Safety Risk Assessment Taskforce, the World Bank published a technical report titled Vietnam Food Safety Risks Management: Challenges and Opportunities, presenting key findings to identify priorities and practical solutions for food safety.²⁵

This endorsement signifies a shift in the stakeholders' and policymakers' perceptions that infrastructure change is not a magic bullet for food security. Instead, results-focused and

²⁵ World Bank. 2017. Vietnam food safety risks management: Challenges and opportunities. Technical Working Paper. Hanoi, Vietnam: World Bank.

risk-based approaches are necessary for further improving the country's food safety. Risk analysis has been accepted as the 'gold standard' for assuring food safety.

The report includes an urgent call for improved management of food safety issues in Viet Nam, which involves risk assessment, management and communication. i) Risk assessment: Improve and strengthen the scientific evaluation of known or potential adverse health effects resulting from human exposure to foodborne hazards; ii) Risk management: establish a performance management system within ministries dealing with food safety issues and working with food consumers to promote better practices by food producers; iii) Risk communication: develop a food safety communication strategy and enhance collaboration among relevant state agencies and other stakeholders to deliver practical and coherent food safety messages to the public.

A Risk-based approach to Food Safety was adopted by the Livestock Competitiveness and Food Safety Project (LIFSAP, WB, 2009-2019) and disseminated in 12 provinces. Another World Bank project, Vietnam: Agri-Food Safety Project (AFSP) (coded as P171187), was implemented by MARD in Vietnam's major cities, including Hanoi and Ho Chi Minh City. The project's objective was to improve food safety management systems and infrastructure in targeted areas and reduce food safety risks in selected value chains.

The Government of Viet Nam has started strengthening coordination among ministries, engaging the private sector and social organizations, improving risk communications to raise public awareness, and developing the capacity of laboratory networks to better manage food safety risks. In September 2021, President Nguyen Xuan Phuc affirmed Viet Nam's commitment to transforming food systems in a transparent, responsible, and sustainable manner.

Contribution – ILRI was the leading technical partner in the development of the report, and the report's recommendations are derived from evidence on food safety hazards and risks generated by ILRI research. This includes the first quantitative risk assessment of food-borne disease (Dang-Xuan et al., 2016)²⁶, a risk assessment of cost of food-borne illness (Minh et al., 2015)²⁷ and the risk of exposure to hazardous chemical residues (Tuyet-Hanh et al., 2016)²⁸

ILRI also developed, contributed to, adapted and tested tools, methods and metrics, including participatory risk assessment, systematic literature reviews of food safety in

²⁶ Dang-Xuan, S., Nguyen-Viet, H., Unger, F., Pham-Duc, P., Grace, D., Tran-Thi, N., ... & Makita, K. (2017). Quantitative risk assessment of human salmonellosis in the smallholder pig value chains in urban of Vietnam. *International Journal of Public Health*, 62, 93-102.

²⁷ Minh, Hoang & Anh, Tran & Ha, Anh & Hung, Nguyen. (2015). Cost of Hospitalization for Foodborne Diarrhea: A Case Study from Vietnam. *Journal of Korean Medical Science*. 30. S178. 10.3346/jkms.2015.30.S2.S178.

²⁸ Tuyet-Hanh, T. T., Sinh, D. X., Phuc, P. D., Ngan, T. T., Van Tuat, C., Grace, D., ... & Nguyen-Viet, H. (2017). Exposure assessment of chemical hazards in pork meat, liver, and kidney, and health impact implication in Hung Yen and Nghe An provinces, Viet Nam. *International Journal of Public Health*, 62, 75-82.

informal markets, systems dynamics and food safety system performance assessment (McIntire & Grace, 2020).²⁹

Viet Nam One Health Research Center (2017-today)

Centre – In collaboration since 2007, ILRI, the National Institute of Veterinary Research (NIVR) and the Hanoi University of Public Health (HUPH) created the One Health Research Center in 2017. The platform aims at providing training and conducting research in zoonoses, addressing intersectoral issues such as food safety, antimicrobial resistance (AMR) and zoonotic diseases. The platform aims at facilitating the translation of research findings to policy and practice. The centers gather more than 10 key One Health partners and stakeholders.

Contribution – ILRI supported its establishment.³⁰

Rice Sector

Rice Natural Resource Management Practices as a Mitigation Mechanism in Viet Nam's GHG mitigation policies (2011-today)

Policies – In 12/2011, Decision 3119/QD-BNN-KHCN of MARD aimed to reduce crop production GHG emissions by Mt 5.72 CO₂e (10.03% of the total GHG emission to 2020), advocating the promotion advanced rice farming practices to save irrigation water and input costs, such as SRI, 3R3G, 1M5R, AWD in key rice growing areas such as Red River Delta, North Central Area and Mekong River Delta. An objective of 3.2 million ha of rice cultivation applying with SRI, 3R3G, 1M5R, AWD was fixed for 2020.

In 09/2020, Viet Nam submitted an updated Nationally NDC,³¹ increasing its commitment target levels. Efforts to reduce GHG emissions in its agricultural sector were stated, including increasing areas with mid-season water drainage and AWD irrigation techniques, and increasing areas with ICM, 3R3G, 1M5R. The NDC 2020 stated that mid-season water drainage and alternating wet and dry irrigation techniques applied on 45,000 ha of rice is estimated to reduce by Mt160CO₂e (Updated NDC, 2020).

In the MONRE's Technical report on the Intended NDC 2020 Viet Nam includes in its unconditional NDC target the increased use of AWD irrigation and systems of rice intensification (SRIs) covering 200,000 ha between 2021 and 2030. In its conditional

²⁹ McIntire, J. and Grace, D. (eds). 2020. The impact of the International Livestock Research Institute. Nairobi, Kenya: ILRI and Wallingford, UK: CABI.

³⁰ ILRI, 2020. Report on development of a One Health Centre in Viet Nam. Hanoi, Viet Nam.

³¹ https://vihema.gov.vn/wp-content/uploads/2020/10/NDC-CAP-NHAT_BAOCAO-KY-THUAT_Final.pdf

target, Viet Nam includes additional actions to incorporate AWD and SRI for 1,000,000 ha for the same period.

Contribution – Several of these advocated Natural Resource Management packages originate from IRRI research conducted in Viet Nam in the last two decades (see Stocktake for additional details).

Decision No. 1898/QĐ-BNN-TT on Restructuring Viet Nam's Rice Industry (2014-2020)

Policy – On May 23, 2016, the Minister of MARD promulgated Decision No. 1898/QĐ-BNN-TT approving the Program on Restructuring Vietnam's Rice Industry to 2020 and a Vision to 2030, setting targets by 2030. The program specific targets by 2020 include (i) guarantee profits for rice growers, accounting for at least 30% of total revenue; (ii) increase the rate of farmers using certified seeds to 75% in the specialised cultivation areas such as MRD and reducing the amount of seed sown in the southern provinces to an average of 80 kg/ha; (iii) increase the areas with IPM application to at least 75%, the area applying sustainable farming practices (3G3R, 1M5R, AWD, SRI, VietGAP and others organic standards) to at least 50%, reducing the amount of fertiliser and pesticide by 30% compared to then practices in 2016; (iv) reduce post-harvest losses below 8%; (v) reduce GHG emissions by 10% compared to then practice in 2016; (vi) in areas specialising for commercial rice production, increase the area of large-field production to at least 20%; and (vii) reaching 20% of the exported volume of rice under the brand name of Vietnamese rice.

Contribution – IRRI played a role in the design and implementation of Decision No. 1898/QĐ-BNN-TT. In November 2014, a workshop titled Restructuring Vietnam's Rice Industry in 2014-2020 Towards Increasing Added Value and Sustainable Development for New Rural Construction was hosted by MARD and IRRI. IRRI presented a technical assistance (TA) package that covered six necessary innovative solutions: high quality and specialty rice for the domestic and export markets, branding of Vietnamese rice, reduction of losses, climate change adaptation, support for small farmers, and policy advice.

In MARD's Decision No. 1898/QĐ-BNN-TT dated May 2016 on Restructuring Viet Nam's Rice Industry to 2020 and 2030, the role of IRRI in the implementation of some tasks is mentioned: "Strengthen rice research and develop cooperation with the International Rice Institute (IRRI) and other international scientific organizations and countries to enhance national research capacity and train highly qualified scientific human resources". Besides, IRRI's role in collaboration with the Department of Crop Production in choosing key rice varieties, developing a national rice research program, recommending the technical package for the adaptation to climate change, upgrading the Mekong Delta Rice Institute to the National Rice Research Institute was explicitly detailed in the Decision.

Sustainable Rice Platform Mainstreaming the Results of IRRI Research (2011-today)

Platform – The Sustainable Rice Platform (SRP) is a global multi-stakeholder alliance established in 2011. Initially convened by the IRRI, the UNEP and GIZ, the SRP is now an independent membership association of over 100 institutional members from public and private sector stakeholders, research, financial institutions, and NGOs. SRP promotes resource-use efficiency and climate change resilience in rice systems (both on-farm and throughout value chains). It pursues voluntary market transformation initiatives by developing sustainable production standards, indicators, incentive mechanisms, and outreach mechanisms to boost wide-scale adoption of sustainable best practices throughout rice value chains.

The SRP standard comprises 41 requirements structured under eight significant themes, including (1) Farm management; (2) Pre-planting; (3) Water use; (4) Nutrient management; (5) Integrated Pest Management; (6) Harvest and Post Harvest; (7) Health and Safety; and (8) Labor rights.

Contribution – IRRI has played a role in the platform’s emergence and activities. The platform is believed to have acted as a powerhouse for development projects and policy designs, largely drawing on results from IRRI’s research. In 2017, the first Vietnamese corporation (Loc Troi) joined SRP, supported by IFC Viet Nam, to apply SRP’s sustainable standards and indicators to its rice production. During 2018-2021, Rikolto Viet Nam (an NGO) organized 18 training courses for rice farmers in 9 cooperatives on SRP standards. GIZ Viet Nam has been cooperating with government agencies to pilot and disseminate SRP standards. In early 2020, GIZ has supported SRP pilots in 4 provinces of An Giang, Bac Lieu, Dong Thap, and Can Tho. In 2020, SRP standards were promoted by VnSAT Project (a MARD project funded by the WB) through workshop activities. The workshop provided helpful information for local authorities and cooperatives on the application of sustainable rice production and assessment using the international SRP standards. In Aug 2021, 5 Viet Nam government agencies and private stakeholders were members of the SRP, including (1) Allied Development Corporation; (2) Center for Sustainable Rural Development; (3) Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD); (4) Loc Troi Group Joint Stock Company; and (5) Viet Nam Ministry of Agriculture and Rural Development (MARD).

MARD's Decision 555/QĐ-BNN-TT on January 26,2021 on Restructuring Viet Nam’s Rice Industry to 2025 and 2030 states an objective of 70% of areas applying sustainable farming processes (ICM, IPM, SRP, SRI, 1M5R) by 2030.

Compared to 1M5R practices, the SRP standard is more comprehensive because it covers themes related to all farm-level processes and rice production's social and environmental aspects (such as health and safety, labor rights). SRP standard has several possible levels of compliance which encourages and reward progress towards sustainable rice cultivation, while 1M5R recommends farmers with specific quantities of inputs (seed, fertilizer, pesticide) and practice/machine/tools (AWD, CBH) uses. SRP members and farmer

organizations are entitled to seek approval for SRP trademark use or value statements on compliance or improvement based on their scored points.

Circular No. 19/2109/TT-BNNPTNN on the Regulations on Collection, Treatment and Use of Crop by-products (2019)

Policy – Based on a proposal from the Crop Production Department, MARD issued Circular No. 19/2019/TT-BNNPTNN on November 15, 2019. The Circular’s regulations apply for organizations and households having activities of crop by-product collection, treatment and use in the agricultural crop areas and for ornamental plants, producing mushrooms. In terms of crop by-product collection, the circular encourages the use of advanced techniques in harvesting, collecting plant by-products; encourage the use of technologies in compressing by-products before transportation. Regarding by-product treatment, it encourages to use bio-enzymes and new techniques to ensure that by-products do not pollute the environment or spread harmful organisms. Lastly, the circular encourages the use of crop by-products as raw materials for mushroom production, production of animal feed, production of fertilizers or as raw materials for other manufacturing industries.

Contribution – IRRI claim to have provided in

puts, and its suggestions were included in the circular. Research outputs from IRRI’s project on rice straw management have been used for drafting Circular No. 19/2109/TT-BNNPTNN, including: (1) collect and remove crop by-products out of the field; (2) encourage the use of advanced techniques in harvesting, collecting plant by-products; in compressing by-products before transportation; (3) encourage the use of crop by-products as raw materials for mushroom production; production of animal feed, production of fertilizers or as raw materials for other manufacturing industries.

The ASEAN Rice Net (2019-today)

Network – The ASEAN Rice Net is an upcoming regional network for sharing and evaluating advanced IRRI-developed rice breeding lines. Initially presented at the meeting of ASEAN Ministers on Agriculture and Forestry (SOM-AMAF) of Asean+3 countries in 2016, it was endorsed in November 2019 by the ASEAN +3. The network aim is to enable countries to co-develop new, improved rice varieties, enhance the technical skills of scientists through training, and increase the capacity of national rice breeding programs across ASEAN organizations. The endorsement enables IRRI to also communicate closely with the ASEAN + 3 to develop both technical and financing support modalities for the network.

Contribution – The ASEAN Rice Net was set to be launched in 2020. No information was found.

Council for Partnership on Rice Research in Asia (CORRA, 1996-today)

Council – The Council for Partnerships on Rice Research in Asia (CORRA) was established with 10 country members in 1996, and currently includes 16 countries in Asia. The council is currently composed of the leaders of the national agricultural research and extension systems (NARES) of these countries, and IRRI. As a regional consultation mechanism, the main objective of CORRA is to guide, facilitate, support and strengthen the partnerships between and among the NARES in Asia, and IRRI.

Contribution – CORRA has fostered dialogue between countries that can present their needs and concerns for IRRI to direct its areas of research. The biggest benefit Viet Nam received from CORRA is easily accessible genetic materials for rice research.

Cassava Sector

Decree 1605/BVTV-TV on the Technical Process for the Prevention of CMD in cassava (2017)

Policy – Following a Cassava Mosaic Disease (CMD) in Tay Ninh province, Viet Nam in 2017, MARD issued an urgent dispatch No. 5920/CD-BNN-BVTV to direct Tay Ninh provincial authority to implement the destruction of cassava with CMD. Two days later, on 21 Jul 2017, The MARD Plant Protection Department issued guidance to local authorities named Technical Process for the Prevention of CMD in Cassava (1605/BVTV-TV). The Technical Process indicates severely infected varieties (HLS11) and sporadically infected varieties (KM 419, KM 140) and gave recommendations to local authorities and farmers on planting CMD-resistant cultivars, and not the infected ones.

Contribution – The prompt response of the MARD Plant Protection Department in indicating the severely infected cultivars and producing recommendations to local authorities on cultivars that should be avoided/planted can be linked to CIAT research activities.

In 2015, CIAT scientists became aware of the presence of the Sri Lankan cassava mosaic virus (SLCMV) that caused Cassava Mosaic Disease (CMD) in Cambodia and created a task force to assess the extent of the problem and implement actions to mitigate its effect in January 2016. In May 2017, cassava plants in Tay Ninh province, Viet Nam, showed typical CMD symptoms, including chlorotic mosaic, leaf distortion, and stunted growth (Uke et al., 2018).³²

The CIAT task force took advantage of a DNA fingerprinting dataset collected in Viet Nam in 2016 to test for SLCMV in different production areas, including Tay Ninh province, which

³² Uke, A., Tokunaga, H., Utsumi, Y. et al. Cassava mosaic disease and its management in Southeast Asia. *Plant Mol Biol* (2021). <https://doi.org/10.1007/s11103-021-01168-2>

borders Cambodia. The results confirmed that SLCMV was already present in 2016 in Viet Nam. Results also demonstrated that the infected varieties were bred in Viet Nam and thus were not imported from South Asia. The CIAT task force communicated the results to the Vietnamese plant protection authorities, which enabled Viet Nam to officially recognize the presence of CMD in the country in 2017, the same year it was formally recognized in Cambodia.

Coffee Sector

Decision 2085/QĐ-BNN-TT of MARD on the Replanting Process for Robusta Coffee (2016)

Currently, there are two water-saving irrigation technologies recognized by MARDs as important tools to reduce the impact of climate change (MARD, 2019).³³ One of them is a technology developed by CGIAR scientists with a local partner (Western Highlands Agriculture & Forestry Science Institute - WASI) first mentioned in Amarasinghe et al. (2015).³⁴ The technology is later included in Decision Number 2085/QĐ-BNN-TT of MARD on the replanting process for Robusta coffee (MARD, 2016).³⁵

Other

Decision-35/2008/QĐ-BNN to Recognize, Encourage and Impose Quality Conditions to Informal Seed Systems (1997-2008)

Policy – In 2008, MARD recognized the informal seed system in Decision-35/2008/QĐ-BNN dated 15th Feb 2008, "promulgating regulations on the management of farmer-saved seeds". The Decision encourages and imposes conditions for the preservation, conservation, exploitation of genetic resources and local plant varieties. It also covers the selection and breeding of new plant varieties and the production and exchange of these plant varieties within community and the market.

³³ MARD (2019) Water-saving irrigation for coffee: an inevitable trend. MARD. <http://www.cuctrongtrot.gov.vn/TinTuc/Index/4416>

³⁴ Amarasinghe, U.A., et al. (2015) Toward sustainable coffee production in Vietnam: More coffee with less water. *Agricultural System* 136: 96-105p. ISSN: 0308-521X

³⁵ MARD (2016) Decision Number 2085/QĐ-BNN-TT of MARD on the replanting process for Robusta coffee. MARD. <https://thuvienphapluat.vn/van-ban/Linh-vuc-khac/Quy-dinh-2085-QĐ-BNN-TT-Quy-trinh-tai-can-h-ca-phe-voi-2016-331013.aspx>

Contribution – In 1995, the International Plant Genetic Resources Institute (IPGRI) supported by CGIAR, collaborated with national programs from nine countries across five regions to formulate a global project. The project aimed to strengthen the scientific basis of in situ conservation of agricultural biodiversity. The in situ conservation project was not designed to discourage farmers from adopting new, more productive crop varieties. Rather, the project was set up to contribute to a better understanding and appreciation of, and add value to, the locally developed genetic resources maintained by farmers.

The project was implemented in Viet Nam in two phases. Phase 1 spanned three years, from 1997 to 1999 and Phase 2 took place from 2000 to 2003. Prof. Nguyen Huu Nghia – Viet Nam Agricultural Science Institute (VASI) served as the Director General and National Project Coordinator. Other project's contributors included professors, lecturers, and researchers from various universities and institutes. In 2001, VASI and IFGRI published a volume of proceedings named *On-farm Management of Agricultural Biodiversity in Vietnam*. This volume contained results achieved by Vietnamese partners in the first phase and presented in the Project Annual Meeting. Informal seed systems/markets were among the research topics/outputs conducted during Phase I. The main purpose of the second phase was to strengthen the scientific basis, institutional linkages and policies that support the role of farmers in conservation and use of crop genetic diversity.

According to Le Thu Anh and Elise Pinners (2003)³⁶, Viet Nam's agricultural policies were focused on the formal seed sector and were under pressure to reform then. Their research, which used an IFGRI's study as an input, focused on comparing informal and formal seed sectors, and presented opportunities for the development of the informal seed sector. This included measures for seed quality control and technical services to farmers specializing in seed production and/or breeding.

³⁶ Le Thu Anh and Elise Pinners. 2003. Good seed from the informal rice seed sector: a study on the local rice seed sector in Northern Vietnam. VECO Vietnam. January.

