Appendix 1: Questionnaire

I. General information of households

All me	mbers of hou	usehold			
НН	Relation	Marital status		Sex	
mem.	to	(2)	Age	1.Male, 2.Female	Year of schooling
ID	HH (1)	(-)			
1					
2					
3					
4					
5					

Code:

[1]: 1.HH head, 2.Husban/wife, 3.Son/Daughter, 4.Stepson, 5.Adopted son/daughter, 6.Father/mother, 7.Brother/sister, 8.Grandson/Granddaughter, 9.Niece/Nephew, 10.Son/daughter in law, 11.Brother/sister in law, 12.Father/mother in law, 13.Other relative, 14.Servant, 15.Other (please specified......)
[2]: 1.Single, 2.Married, 3.Widow, 4.Divorce, 5.Seperate

II. Land use and cropping changes (Land access and land distribution)

Land use	Land size	Land property right?	How many	times	Previous land use?			
		1.Yes (Type)	per year?					
		0.No						
Agricultural	Total:ha							
land								
	Plot 1ha	Plot 1	Plot 1		Plot 1			
Rice land	Plot 2ha	Plot 2	Plot 2		Plot 2			
Rice failu	Plot 3ha	Plot 3	Plot 3		Plot 3			
	Plot 4ha	Plot 4	Plot 4		Plot 4			
				If yes,	please specify kind of			
Have you ch	anged any crops	□ 1 yes □2 no		cropping	g system:			
in each plot	and when? (as			Plot 1				
example the	e change from	Specify the year		Plot 2				
floating rice	to early season			Plot 3				
and receding	rice)			Plot 4				
		□1 New short-term var	ieties introduc	ed □2 l	Enough irrigation system			
Why did you	change them?	□3 Decreasing water level □4 Difficult to control old system 5□						
		Economic			purpose			

	□Others
What are the constraints?	

III. Access to information

What are your three main sources of information you get concerning the agriculture in the table?								
Description of issues	Answers							
Prices of goods or crops								
Agricultural extension								
Meteorology information								
Others, please specify								

IV. Rice production

4.1 Floating rice: Month....... surface......ha Year of growing:......

	U					0 0						
				Revenu	e							
DL	CC	Rice	D	Productions	Sold	Consumption	Price	Income				
Plot	Surface	varieties	Duration	(kg)	(Kg)	(kg)	(USD)	(USD)				
	·	l.	Expen	diture on Inpu	its and lal	bour	!	•				
			Expen	diture on Inpu	ıts and lal	bour						

	Expenditure on Inputs and labour								
	0	Price		bour			Where	Before(can	
Input type	Quant ity	(USD/ unit)	Internal (M- day)	External (M-day)	Hire	Total	did you buy?	be different system)	
Seed Rate									
Chemical									
fertiliser									
Pesticide									
Herbicide									
Sack									
Soil preparation									
Broadcasting									
Weeding/Grass									
Rats controlling									
Harvesting									
Returning rice sheaf									
Transportation									
Threshing									
Post-harvesting	_	_	_	_		_			
Rental land									
Other									

4.2 Ea	rly seasor	rice:	Mont	th			. surface.		ha	Ye	ar of g	rowin	g:		
	Revenue														
N^0	Surface	R	ice	Down	ation	Pr	oductions		Sold	Co	nsump	tion	Price	e	Income
Plot	Surface	vari	eties	Dur	auon		(kg)		(Kg)		(kg)		(USE))	(USD)
						Co	ost of Inpu			ur					
		Ou	ant		ice	Ļ		I	Labor				***		m . 1
In	put type	_	ty		SD/ nit)		nternal		Externa				Hire		Total
Seed				uı	πι)	- (M-day)		(M-day)					
Chen	nical														
fertili															
Pestio															
Herb: Sack	icide														
	preparation	ı													
Broad															
Weed															
Fertil															
	controlling	;													
	esting sportation														
Thres						+									
	harvesting														
Other	î														
4.2 D	1		1				C		1 3	7	C				
4.3 K	eceding ric	e: IVI	iontn.			s	Rev			ear	or gro	wing:			
N^0		Rio	ce			Pro	oductions		Sold	Co	nsump	tion	Pri	ce	Income
Plot	Surface	varie		Dura	tion		(kg)		(Kg)		(kg)		(US		(USD)
1 101		varic	iics				(Kg)		(Ng)		(Kg)		(05	D)	(05D)
						Co	ost of Inpu	ıts	and labo	ur					
					Price	9	Labor								
Input	type		Qua	ntity	(USI		Internal (M-day)		Externa (M-day)		Hire			Total	l

Seed Rate

Chemical fertiliser

Pesticide			
Herbicide			
Sack			
Soil preparation			
Broadcast			
Weeding			
Fertilizing			
Rats controlling			
Harvesting			
Transportation			
Threshing			
Post-harvesting			
Rental land			
Other			

4.4 Dry Season rice Month....... surface......ha Year of growing:......

	Revenue									
N 0 Pl ot	Surface	Rice varietie s	Duratio n	Productions (kg)	Sold (Kg)	Consumption (kg)	Price (USD)	Income (USD)		

Cost of Inputs and labour Labour Price Input type Quantity (USD/ Internal External Hire Total unit) (M-day) (M-day) Seed Chemical fertiliser Pesticide Herbicide Sack Soil preparation Broadcast Weeding Fertilizing Rats controlling Harvesting Transportation Threshing Post-harvesting Other.....

4.5 Long-term rice Month....... surface......ha Year of growing:......

	3						Revenue				<u> </u>		
N ⁰ Plot	Surface	Ri vario	ce	Duration		Pr	oductions (kg)	Sold (Kg)		Consumption (kg)		rice (SD)	Income (Riel)
					C	ost o	of Inputs ar	ıd la	boui	•			
Input t	ype		Quar	ntity	Price (USI unit)	;	Internal (M-day)	Lab	our Ext	ernal -day)	Hire	Total	
Seed Chemi Pestici	cal fertilise	r			dire		(III day)		(171	uuy)			
Herbic Sack													
	reparation												
Weedi Fertiliz	ng												
Rats co	ontrolling												
Transp	ortation												
Post-ha	arvesting												

V. Sensitivity analyses

How mu	How much of paddy rice do you get per ha during the best, normal and worse year ?											
		Best	year			Norm	al Year	•	Worse year			
Crops	Labour	Yiel d	Cost	Revenu e	Labour	Yiel d	Cost	Revenue	Labour	Yiel d	Cost	Revenue
Early												
season												
rice												
Dry												
season												
rice												
Floatin												
g rice												
Recedi												
ng rice												
Long-												
term												
rice												

VI. Awareness and perception of ES

1. To what extent, are you aware the Ecosystem services from Tonle Sap Lake contributed in your agriculture (rice)? (1=Yes/2=No)

Categories of ES	Scales of awareness (1= strongly agree, 2= Agree, 3= Somehow, 4= Disagree)
1.1 Fresh water (flooding)	
1.2 Soil fertility	
1.3 Wild animals (snake, other animals)	
1.4 Fishes	
1.5 Flooded forest	

2. To what extent, do you think these Ecosystem services from Tonle Sap Lake are important to your agriculture (rice)? (1= yes, 2= no)......

Categories of ES	Scales of perceptions (1= Very important, 2= Important, 3= less important, 4= Not important)
2.1 Fresh water (flooding)	
2.2 Soil fertility	
2.3 Wild animals (snake, other animals)	
2.4 Fish	
2.5 Flooded forest	

3. To what extent, do you agree these ES in Tonle Sap are being changed comparing to previous time (before 2008)?

Categories of ES	Scales of perceptions (1= Strongly change, 2= Somehow, 3= The same, 4= Don't know)	(A) Why?
4.1 Fresh water (flooding)		
4.2 Soil fertility		
4.3 Wild animals (snake, other animals)		
4.4 Fish		
4.5 Flooded forest		
4.6 Climate		

Appendix 2: Group discussion



Appendix 3: Farmers interview



Appendix 4: In depth interview and field observation



Appendix 5: Traditional rice field



Appendix 6: Chemical fertilisers applied by farmer in short-term rice

