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1. Targets and accomplishments by province
 Rice-Based Farming Systems Training and Support Program for the Autonomous Region in Muslim Mindanao (JICA-TCP4)
 (February 2005-2010)

TARGETS AND ACCOMPLISHMENTS, FY 2004-2010 (Breakdown by Province)

ACTIVITY	PERFORMANCE INDICATOR	Province	COMPLETED (Follow-Up Support Program)				ACCOMPLISHMENTS/TARGETS (JFY 2004-2009) (Technical Cooperation)										TOTAL TARGETS	ACCOMP (as of Nov. 2007)				
			JFY 2002	JFY 2003	JFY 2004	JFY 2004	JFY 2004	JFY 2005	JFY 2006	JFY 2007	JFY 2008	JFY 2009										
			Jan-Mar 03	Jan-Mar 04	June-Oct 04	Feb-Mar 05	Apr-Mar 06	Apr 06-Mar 07	Apr 07-Mar 08	Apr 08-Mar 09	Apr 09-Feb 10											
1. Conduct training for ATs	300 ATs trained (10 batches)	Maguindanao	6	7		12	33	27	50									88	92			
		Lanao Sur	6	6		2	23	22	59										86	57		
		Basilan	6	7		4	8	14	39										43	34		
		Tawi-tawi	6	3		4	15	13	41										39	40		
		Sulu	6	8		4	11	15	44										44	37		
		PhilRice Staff					5	3											12			
		Total	30	31		26	95	94	180	180									300	272		
		2. Establishment of technology demonstration farms	20 new Palayamanan models (integrated RBFS) established (also served as FFS site and used as techno demo)	Maguindanao		1		1	1	3	1									5	5	
				Lanao Sur		1		1	1	1	1										4	3
				Basilan		1		-	1	2	1										4	3
Tawi-tawi						1	1	-	1										3	2		
Sulu						1	-	2	1										4	3		
Total				3		4	4	8	5										20	16		
3. Establishment/maintenance of nurseries	Rice/vegetable techno demo farms as FFS			Maguindanao		5	6	4	10	8	11									40	29	
				Lanao Sur		2	5		6	7	7	7									32	20
				Basilan		1	1		2	2	2	2									17	6
				Tawi-tawi		2	2		3	-	3	3									17	6
		Sulu		2	4		3	3	2	3									17	8		
		Total		12	18		24	19	26	26									123	69		
		3. Establishment/maintenance of nurseries	nurseries established/maintained	USM, N Cotabato																		
				MSU, Marawi City																		
				PhilRice Marawi City																		
				PhilRice Midsayap																		
DAF-ARMMIARC																						
Total																	0					

ACTIVITY	PERFORMANCE INDICATOR	Province	COMPLETED (Follow-Up Support Program)										ACCOMPLISHMENTS/TARGETS (JFY 2004-2009) (Technical Cooperation)										
			JFY 2002		JFY 2003		JFY 2004		JFY 2005		JFY 2006		JFY 2007		JFY 2008		JFY 2009		TOTAL TARGETS		ACCOMP (as of Nov. 2007)		
			Jan-Mar 03	Jan-Mar 04	Jan-Mar 04	June-Oct 04	Feb-Mar 05	Apr-Mar 06	Apr-Mar 06	Apr 06-Mar 07	Apr 07-Mar 08	Apr 08-Mar 09	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10	Apr 09-Feb 10
4. Conduct of info campaign	information capaign activities conducted:																						
	production of information materials																						
	Field days conducted	ALL																					
5. Conduct of study tours for PAOs, ATs, farmers and women	Radio program/SOA aired	ALL																					
	PAOs with coordinators/ ARMIARC personnel	ALL																					
	Ag. Technicians	ALL																					
6. Provision of equipment	Farmer-cooperators	ALL																					
	Bangsamoro Women	ALL																					
	Cost of equipment provided	ALL	491,564.0	955,703.0																			
7. Improvement of facilities	Facilities improved	PhilRice Midsayap																					
	Cost of facilities improved	PhilRice Midsayap	1,844,000.0	793,461.9																			
	FUNDS RELEASED BY JICA TO PHILRICE		2,642,300.0	2,874,735.9																			
TOTAL EXPENSES (excluding equipment & facilities)			2,647,309.2	2,862,924.2																			
	Difference		(5,009.2)	11,811.7																			
	TOTAL BUDGET (including equipment & facilities)		4,982,873.17	4,612,089.10	2,287,187.51																		

Training of ATs	FY2005					FY2006					FY2007				
	July 11-21 '05	Nov 21-Dec '05	Feb-06	June-Oct 06	Dec-06	Jan-07	Feb-07	Jun-07	Jul-07	Aug-07	Jan-07	Feb-07	Jun-07	Jul-07	Aug-07
Maguindanao	13	15	5	1	19	1	4	8	4	8	7	4	8	4	8
Lanao Sur	9	8	6	1	16	1	4	4	2	4	4	2	4	2	4
Basilan	1	4	3	1	3	1	3	3	2	3	3	2	3	2	3
Tawi-tawi	5	5	5	1	9	1	3	3	2	3	3	2	3	2	3
Sulu	5	3	3	1	5	1	1	1	1	1	1	1	1	1	1
PhilRice Staff	5 *														
TOTAL	38	35	22	5	35	32	22	22	11	24	32	22	22	11	24

a/ funded by PhilRice
b/ Updating/refresher course for all trained ATs in 2007
c/ approved budget for 2007 - 13,426,335

Note: in red font: to be implemented (targets)

* July-Sept for field assistants not targeted; need to further train ATs on vegetable production

2. Profile Form 2006 Compare Rice

Table: Profile comparison of farmer-participants in the TCP4 FFS Training between the impact survey and base line survey

No.	Item		Impact survey on rice		Base line survey		Comparison results
			n=467		n=561		
			Number	Percent	Number	Percent	
1	Sex	Male	419	90	469	83	Impact survey samples have almost same share of sex..
		Female	48	10	80	14	
		No response	-	-	13	2	
2	Age:	40 yrs old and below	257	55	Average 43 years old		Impact survey samples are a little younger than the base line's.
		41 to 60 yrs old	193	41			
		61 yrs old and above	17	4			
3	Educational Attainment:	6 yrs and below	287	61	347	62	Impact survey's educational attainment profile is almost same as the base line's.
		7 to 10 yrs	117	25	148	26	
		11 yrs and above	63	13	59	11	
		No response	-	-	7	1	
4	No. of years in farming:	15 yrs and below	295	63	Average 15 years		Impact survey samples indicate a little shorter years than the base line.
		16 to 30 yrs	135	29			
		31 yrs and above	37	8			
6	Tenure	Owner	269	58	208	37	Impact survey samples include more owner farmers than the base line. But if no response is added to the owner, not so big difference is given.
		Share-cropper	139	30	92	16	
		Leaseholder/renter	55	12	180	32	
		Mortgage	4	1	-	-	
		No response/Others	0	0	81	14	
7	No. of household members*	5 and below	225	48	313	56	The impact survey samples shows more number of 6 to 10 members' households size than the base line.
		6 to 10	223	48	67	12	
		11 and above	19	4	23	4	
		No response	-	-	158	28	

Note: Since the base line survey was conducted during vegetable training, we compare the Impact survey data on vege.

:*Data of the base line survey are applied of different classifications of 1-3 to 4-6, 7-9, 10& above and no response.

: () shows the percentage of the sample number to the whole participant number.

コメントインパクト調査に集まった農家は比較的若くて家族数は多く、農業を開始してからの年数も比較的少ない、地主農家が主体であった。ベースライン調査では、インパクト調査よりも少し高齢は少なく、農業経験は少し多い。土地所有については、小作農家が多いが、No responseの人数を地主に加えるとそれほどのインパクト調査で58%に対して51%と差が少なくなる。

3. List of publications

JICA TCP 4

List of Publications Provided to APOs & ATs

TECHNO BULLETINS

- 1 Ecological Rice Farming
- 2 Modified Dry Direct Seeding Technology
- 3 Rice Post Production Practices
- 4 Integrated Farm and Household Waste Management
- 5 Rice-based Microbial Inoculant
- 6 Carbonized Rice Hull
- 7 Armyworm and Cutworm
- 8 Integrated Nutrient Management for Rice Production
- 9 Hybrid Rice Seed Production
- 10 Matatag lines: Farmer's Partners in Rice Tungro Disease Mgt.
- 11 Wet Seeded Rice Production
- 12 Use of Indigo as Green Manure
- 13 Management Options for Ricefield Weeds
- 14 Management of Planthoppers and Leafhoppers
- 15 Pagpaparmi ng Purong Binhi ng Palay
- 16 MOET: Nutrient Deficiency Test Made Easy
- 17 Controlled Irrigation: A water-saving technique for transplanted rice
- 18 40 kg certified seeds per hectare
- 19 Equipment for Rice Production and Processing
- 20 10 Steps in Compost Production
- 21 Leaf Color Chart
- 22 PALAYAMANAN: Making the most out of rice farms
- 23 Management of Field Rats
- 24 Rice Stem Borers in the Philippines
- 25 Pilipino version, 10 Hakbang sa Paggawa ng Kompost

BOOKS / MANUALS

- 1 Rice Integrated Crop Management: Towards a RiceCheck System in the Philippines
- 2 Hybrid Rice Seed production Training Manual
- 3 Highland Rice Production
- 4 Field Guide in Harmful and Useful Organisms in the Phil. Ricefield
- 5 Rice Chemistry and Quality
- 6 Field Guide on Major Disorders of the Rice Plant in the Philippines
- 7 Virus and Virus-like Diseases of Rice in the Philippines
- 8 GO-NGO Collaboration: Towards People Empowerment
- 9 Palaytandaan (Guide to Rice Farming)
- 10 Technoguide for Wet-Seeded Rice Production
- 11 Palaycheck System for Irrigated Lowland Rice
- 12 Insects and Their Natural Enemies with Vegetables and Soybean in Southeast Asia
- 13 Rice-based Crop Production Manual

POSTERS

- 1 Synchronous Planting Poster
- 2 Useful Organisms in the Philippine Ricefields
- 3 Harmful Organisms in the Philippine Ricefields
- 4 Major Disorders and Diseases of Rice Plant in the Philippines

PHILRICE NEWSLETTER (Rice S&T Magazine) selected issues

FLIPCHARTS ON VEGETABLE PRODUCTION

translated in local dialects (ampalaya, eggplant, okra, tomatoes, stringbeans, pechay)

4. List of “Reports”, “Survey” and “Monitoring forms” in use for the Project

<Report>

Purpose	Name of Survey and Reports	Formats in use	Targets to collect information	Timing to conduct	Conductors	Contents	Situation actual for the preparation	Note
Annual progress	Accomplishment report	-	-	End of the fiscal year (submit)	<ul style="list-style-type: none"> Field assistance of PhilRice and Provincial coordinator PhilRice Midsayaph PhilRice HQ 	To report performance in the year	Published every year as scheduled	-
Mid-year progress	Progress report	-	-	Middle of the fiscal year (submit)	<ul style="list-style-type: none"> Field assistance of PhilRice and Provincial coordinator PhilRice Midsayaph PhilRice HQ 	To report performance in the first half year	Published every year as scheduled	-
Monthly progress	Monthly report	-	-	Every month during the training program	AT and Field assistance	To report progress and performance of all the activities in FFS	Made for internal reporting. Not for presentation to external purpose.	

<Survey and formats in use>

Purpose	Name of Survey and Reports	Formats in use	Targets to collect information	Timing to conduct	Conductors	Contents	Situation actual for the preparation	Note
Baseline	Baseline survey	Baseline survey form	Farmers participated in training	In the beginning of training	AT and field assistance	To learn general condition and level of agricultural techniques of farmers	Prepared the report in 2006. Field assistants and ATs collected data, and analyzed/process ed by USM	<ul style="list-style-type: none"> Much time is necessary to conduct the survey due to huge volume of question topics. Many farmers have difficulties to read and write. Also conducted in 2005, but not collected and analyzed info properly.
	Perception survey	No info	Farmers in the targeted area	Conducted only once as a baseline survey for the Project	USM	To learn general condition of farmers in the area	As a baseline survey conducted in 2004	
	Focus group discussion (survey)	List of discussion topics	Farmers participated in training	Before training starts	AT and field assistant	To discuss current farming condition, willingness, constraints faced among participants	Prepared only in 2006 as report Conducted every new sites actually	Planned to prepare the report in 2007
Monitoring	Monitoring survey	Monitoring form	Farmers participated in training	4 times during training period <ul style="list-style-type: none"> Pre-planting phase Vegetative phase Productive phase Harvesting phase 	AT and field assistant	To monitor condition of farmland of trained farmers	Prepared reports of the results only in 2006	<p>Not feasible. Too much questions and too frequent conducts.</p> <p>Would like to include the results in Accomplishment Report as narrative description.</p>
		Monitoring form for cooperators	Cooperators	In the middle of training period	AT and field assistant	To monitor condition of crops and farming practice made by cooperators	Reported within Accomplishment report every year	

Purpose	Name of Survey and Reports	Formats in use	Targets to collect information	Timing to conduct	Conductors	Contents	Situation actual for the preparation	Note
	Impact survey (Adoption survey)	Impact survey form (revised twice)	Farmers participated in training	Not determined	<ul style="list-style-type: none"> Evaluation team composed of USM, MSU, DAF (2006) Socio-econ division of PhilRice Midsayap (2 persons only) (2007) 	<p>To study which techniques farmers adopted after trainings, and changes of yield etc.</p> <p>To focus on performance and impacts basically</p>	<p>Prepared in</p> <ul style="list-style-type: none"> 2006 by USM 2007 by PhilRice Midsayap 	<ul style="list-style-type: none"> In the case of 2006, samples were 80 only. More than XXX are counted in the survey of 2007. Formats used are different between two surveys.
	Pre-test Post-test for AT	Examination format	AT	In the beginning of training and at the end of training	PhilRice, USM ~ depending on training courses	To check the level of AT participants' knowledge before and after	Keeping records of all the tests on the basis of batches	<ul style="list-style-type: none"> 30 questions The same test is conducted before and after.
	Pre-test Post-test for farmers	Examination format	Farmers participated in training	In the beginning of training and at the end of training	AT and field assistant	To check the level of farmers participants' knowledge before and after	Supposed to start from 2007	<ul style="list-style-type: none"> Results are supposed to be included in the Accomplishment report

5. Summary of Baseline & Monitoring Survey in the ARMM on household profile of FFS participants in 2006

Variables		Maguindanao (347)			Lanao Del Sur (248)			Basilan (117)			Sulu (123)			Total		Ave
		N=279	%	Ave	N=173	%	Ave	N=65	%	Ave	N=44	%	Ave	N=561	%	
Sex																
	Male	251	90		129	75		50	77		39	89		469	83	
	Female	16	6		44	25		15	23		5	11		80	14	
	No response	13	4											13	2	
Average age				48			49			36			39			43
Educational attainment																
	Elem. Level	124	44		48	28		13	20		28	64		213	38	
	Elem. Graduate	60	21		50	29		15	23		9	20		134	24	347
	HS Level	35	13		30	17		16	25		1	2		82	15	
	HS Graduate	34	12		24	14		7	11		1	2		66	12	148
	College Level	18	7		13	7		6	9		1	2		38	7	
	College Graduate	8	3		8	5		5	8					21	4	59
	No response							3	4		4	9		7	1	
Ave. Years in farming				15			18			11			15			15
Trainings attended																
	No training							29	45					29	5	
	Cooperative										40	83		40	7	
	FA				23	13		19	30		8	17		50	9	
	FFS	241	86		122	71		16	25					379	67	
	No response	38	14		28	18								66	12	
Land Tenure																
	Owner	134	49		48	28		16	25		10	23		208	37	
	Leasehold/Tenant	67	22		82	47		16	25		15	34		180	32	
	Sharecropper	43	15		23	14		10	15		16	36		92	16	
	No response	35	13		20	11		23	36		3	7		81	14	
Organization																
	Irrigator's association	50	18											50	-	
	FA				45	26					40	83		85	-	
	Coop	17	6		44	25		11	17		-			-	-	
	CVO	11	4		7	4		2	3					20	-	
	IA	15	5		19	11								34	-	
	No response	191	67		58	34		52	80		8	17		309	-	
Household size																
	1-3	81	31		51	29		15	23		15	34		162	29	
	4-6	82	31		36	21		22	34		11	25		151	27	
	7-9	39	15		8	5		8	12		12	27		67	12	
	10 & above	16	6					4	6		3	7		23	4	
	No response	61	22		78	45		16	25		3	7		158	28	

Note: Bold writings indicate unreasonable data that the PhilRice cannot clarify the reason and we copy them herein.

6. フイリピン側評価者報告

SUMMARY OF HOUSEHOLD AND ADOPTERS RESPONDENTS

PROVINCE	MUNICIPALITY	BARANGAY	TYPE OF TRAINING PROGRAM	NUMBER OF RESPONDENTS		TOTAL
				HH	ADOPTERS	
Shariff Kabunsuan	Sultan Kudarat	Pinarang	FFS	5	5	10
	Sultan Mastura	Tambo	Palayamanan /FFS	4	4	8
	Barira	Gadung	FFS	3	3	6
	Buldon	Dinganen	FFS	3	3	6
Maguindanao	Datu Ampatuan	Saudi Dapiawan	FFS	5	5	10
	Talayan	North Binagga	FFS	5	5	10
	Balabagan	Upper Itil	FFS	3	3	6
Lanao del Sur	Malabang	Madaya	Palayamanan /FFS	3		6
	Buntong	Puala, Buadiposo	FFS	3	3	6
Balindong		Cadayonan	FFS	3	3	6
	Poona Bayabao	Bubong	FFS	3	3	6
TOTAL				40	40	80

SUMMARY OF AGRICULTURAL TECHNICIAN RESPONDENTS

PROVINCE	MUNICIPALITY WHERE ASSIGNED	VILLAGE(S) WHERE THEY FACILITATED FFS	NUMBER OF ATs
Shariff Kabunsuan	Sultan Kudarat	Pinarang Sultan Kudarat and Tambo, Sultan Mastura	2
	Provincial Coordinator	Maguindanao	1
	Parang	Gadung, Barira	1
	Barira	Gadung, Barira	2
	Buldon	Dinganen, Buldon	2
Maguindanao	Saudi Ampatuan	Dapiawan, Saudi Ampatuan	2
	Provincial Coordinator		1
	Talayan	North Binangga, Talayan	1
	Kabantalan	North Binangga, Talayan	1
Lanao del Sur	Balabagan	Upper Itil	2
	Malabang	Madaya	1
	Balabagan	Cadayonan	1
	Provincial Coordinator	Lanao del Sur	1
	Buadiposo Buntong	Pualas	1
	PoonaBayabao	Bubong	2
TOTAL			21

Mid-term Evaluation Study for Rice-Based Farming System Training and Support Program for ARMM

Evaluation Grid			November 27, 2007	
Evaluation Criteria	Evaluation Items		Data Sources	Result
	Main items	Sub-items		
Relevance	Necessity	Selection of the target group	Field survey and Focus Group Discussions	The farmer respondents in the field survey (40) and Focus Group Discussions (75) indicated the strong necessity to learn agricultural technologies related to rice-based farming systems which helped them improved their farming techniques. Agricultural Technologists were given the opportunity to re-learn and improve agricultural technologies making them more confident instructing farmers
Effectiveness	Project Purpose	Achievement forecast for the project purpose		The result of the field survey confirms the result of the result of the impact survey. Except for the use of hybrid rice, the rest of the technologies were adopted by more than 75% of the respondents. Highest adoption was in Shariff Kabunsuan. Highest adopters were the Maguindanao farmers respondents while higher percentage of early adopters were the farmer-respondents of Lanao del Sur (See adoption Tables).
	Output 2	Achievement forecast for Output 2	Field Survey	Survey results revealed that the ATs still provide regular monitoring (once a week) on some sites.
	Facilitating Factors	Factors to enhance the achievement of the outputs and project purpose	Focus Group Discussion and Field Survey	Formation of farmer groups- with leaders respected by them; and capacitating selected farmer leaders as “Farmer Scientist” Providing Specialized Seed Production Training to interested and enterprising groups/farmers
	Inhibiting Factors			Re-training the ATs on agricultural technologies that they are not confident to instruct or facilitate during trainings Less mobility of the ATs
Impacts	Overall goal	Achievement forecast for the goal		Multiple assignment of ATs Increase in farm income by 42.48% 56.31% and 99.34% in Shariff Kabunsuan , Maguindanao and Lanao del Sur respectively. (See data on adoption tables)

	Impacts as rifle effects		Field survey	<p>Increase in rice yield : 45%, 82% and 71% in Shariff Kabunsuan, Maguindanao and Lanao del Sur respectively</p> <p>Increase in vegetable yield : 238%, 31 and 89% in Shariff Kabunsuan, Maguindanao and Lanao del Sur respectively.</p> <p>Peace and order situations were improved as shown by the removal of soldiers/military check points;</p> <p>Disappearance of thieves in the community because everybody became busy in their farms;</p> <p>Increase capacity to pay resulting in the installation of electrical services.</p> <p>All respondents were able to offer variety of foods (vegetables)for their families and still have extra for gifts and for sale.</p> <p>Four out of the 11 sites have formed farmer association where they are building funds for themselves.</p> <p>DAF-ARRM</p> <p>Continuous deployment of ATs to monitor the project outcomes</p> <p>Commitment to allocate funds for the mobilization of the ATs to the former FFS and Palayamanan sites.</p> <p>Existence of DAs Pagkain ng Masa Project</p> <p>Concerns: Limitation on the creation of items for ATs</p> <p>Implication of the subdivision of Maguindanao into Shariff Kabunsuan and Maguindanao to the ATs available for deployment in Shariff Kabunsuan</p> <p>PhilRice- RBFS is one of the major program of PhilRice.</p> <p>Well-trained pool of staff are available.</p> <p>.Compared to the previous level of knowledge, the contents and methods of their facilitation have significantly improved/ improved due to the trainings they underwent (Table 4)</p> <p>Concerns:</p> <p>In spite of the several trainings they attended (1-4x) ATs still find difficulty facilitating topics in FFS trainings.</p>
	Organization Aspects	Potential of the organization to manage project outputs after the project ends	Field Survey	
	Technology	Technical capacity of AT		

				They got no problem about seed source
		Technical capacity of farmers		Unity and cooperation strengthened
		Potential for the transferred technology to spread to other farmers		Available materials translated into different dialects Farmers who were trained teaching interested farmers Farmers who were trained imitating neighboring farmers

Table 1. Profile Summary of Farmer-Participants in the TCP4 FFS Training
Name of province: Shariff Kabunsuan

SUMMARY

Sites	No. of Farmers Respondents
Pinaring, Sultan Kudarat	5
Tambo, Sultan Mastura	4
Gadung, Barira	3
Dinganen, Buldon	3
TOTAL	15

No.	Item		Sample farmers of the field survey conducted in November, 2007	
			Number	Percent
1	Sex:	Male	13	87.00%
		Female	2	13.00%
2	Age:	40 yrs old and below	4	27.00%
		41 to 60 yrs old	10	63.00%
		61 yrs old and above	1	7.00%
3	Educational Attainment:	6 yrs and below	5	33.33%
		7 to 10 yrs	5	33.33%
		11 yrs and above	5	33.33%
4	No. of years in farming:	15 yrs and below	7	47.00%
		16 to 30 yrs	5	33.33%
		31 yrs and above	3	20.00%
5	Farm area	Total (1) less than 1 ha	3	20.00%
		(2) 1.1-3 ha	11	73.00%
		(3) 3.1 ha above	1	7.00%
	Rice area (upland)	(1) less than 1 ha		
		(2) 1.1-3 ha		
		(3) 3.1 ha above		
	Rice area (irrigated)	(1) less than 1 ha	1	7.00%
		(2) 1.1-3 ha	4	27.00%
		(3) 3.1 ha above		
	Rice area (rainfed)	(1) less than 1 ha	2	13.00%
		(2) 1.1-3 ha	7	47.00%
		(3) 3.1 ha above	1	7.00%
6	Tenure	Owner	9	66.67%
		Share-cropper	2	13.33%
		Leaseholder/renter	2	13.33%
		Mortgage	3	20
		Others		
7	No. of household members	5 and below	7	47.00%
		6 to 10	7	47.00%
		11 and above	1	7.00%
	Female working in the farm	5 and below	15	100.00%
		6 to 10		
		11 and above		
	Male working in the farm	5 and below	15	100.00%
		6 to 10		
		11 and above		

Please fill-up the data by province.

3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4*

Type of Technology	2005		2006	
	1. Practiced	2. not practiced	1. Practiced	2. not practiced
3.1 Seed Quality	4	0	14	1
3.2 Land Preparation	4	0	14	1
3.3 Seedbed Management	4	0	13	2
3.4 Crop Establishment	4	0	13	2
3.5 Irrigation and Water Management	4	0	12	3
3.6 Field Management				
3.6.1 Practice AESA	4	0	12	2
3.6.2 Integrated Pest Management (IPM)	4	0	11	4
3.6.3 Integrated Nutrient Management (INM)	4	0	11	4
3.7 Harvest/Postharvest	4	0	11	4
3.8 Planting of hybrid rice	0	4	0	15
3.9 Backyard Vegetable Gardening	4	4	14	1

* One farmer respondent did not adopt all the technologies in 2006

4.0 FARM PRODUCTIVITY

4.1 Annual gross income in total (P):	Before FFS	After FFS		
	Average	Median	Average	Median
	P 89896.80	P 52800	P 128074.47	P 80000

4.2 Annual gross income from farming (P):	Before FFS	After FFS		
	Average	Median	Average	Median
	P 68363.47	48000	P 97474.47	80000

4.3 Has there been a change in your production cost after FFS training?	Increased	Decreased
	1	14

4.4 (only for Palayamanan participants) Do you raise animals at home?	Yes	No
	4	0

4.5 (only for Palayamanan participants) Do you raise fisheries at home?	Yes	No
	2	2

4.6 Do you maintain a backyard vegetable garden?	Yes	No
	15	0

If the response to 4.4, 5 is YES, proceed; if NO, go to 4.7

4.7 Vegetables grown (top three) in total

1	Eggplant
2	Stringbean
3	

Animals raised (top three) in total

1	Chicken
2	Goat
3	Horse

CROP	AVERAGE YIELD				Number of crops(vegetables)	
	BEFORE FFS		AFTER FFS		Before FFS	After FFS
	cav/ha	kg/cav	cav/ha	kg/cav		
RICE	61.47	56.67	86.67	56.67	NA	NA
VEGETABLE (specific)	1428.9		4830		2	4

4.9 Production usage:*

Crop	Percent Utilization			
	Home Consumption		Sold	
	Before FFS	After FFS	Before FFS	After FFS
Rice	19	15	77	82
Vegetables	55	40	18	60

Percent sold + Home consumption is not = 100%. Some rice and vegetables are given as gifts

Table 2. Profile Summary of Farmer-Participants in the TCP4 FFS Training

Name of province: Maguindanao

SUMMARY

Sites **No. of Farmers Respondents**

Dapiawan, Datu Saudi Ampatuar **5**

North Binangga, Talayan **5**

TOTAL **10**

No.	Item		Sample farmers of the field survey conducted in November, 2007	
			Number	Percent
1	Sex:	Male	10	100.00%
		Female		
2	Age:	40 yrs old and below	5	50.00%
		41 to 60 yrs old	4	40.00%
		61 yrs old and above	1	10.00%
3	Educational Attainment:	6 yrs and below	8	80.00%
		7 to 10 yrs		
		11 yrs and above	2	20.00%
4	No. of years in farming:	15 yrs and below	4	40.00%
		16 to 30 yrs	5	50.00%
		31 yrs and above	1	10.00%
5	Farm area	Total		
		(1) less than 1 ha	4	40.00%
		(2) 1.1-3 ha	6	60.00%
	Rice area (upland)	(1) less than 1 ha		
		(2) 1.1-3 ha		
		(3) 3.1 ha above		
	Rice area (irrigated)	(1) less than 1 ha	4	40.00%
		(2) 1.1-3 ha	6	60.00%
		(3) 3.1 ha above		
	Rice area (rainfed)	(1) less than 1 ha		
		(2) 1.1-3 ha		
		(3) 3.1 ha above		
6	Tenure	Owner	6	60.00%
		Share-cropper	4	40.00%
		Leaseholder/renter		
		Mortgage		
		Others		
7	No. of household members	5 and below	3	30.00%
		6 to 10	6	60.00%
		11 and above	1	10.00%
	Female working in the farm	5 and below	10	100.00%
		6 to 10		
		11 and above		
	Male working in the farm	5 and below	10	100.00%
		6 to 10		
		11 and above		

Please fill-up the data by province.

3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4

Type of Technology	2005		2006	
	1. Practiced	2. not practiced	1. Practiced	2. not practiced
3.1 Seed Quality	2	0	10	0
3.2 Land Preparation	2	0	10	0
3.3 Seedbed Management	2	0	10	0
3.4 Crop Establishment	2	0	10	0
3.5 Irrigation and Water Management	2	0	10	0
3.6 Field Management		0	10	0
3.6.1 Practice AESA	2	0	10	0
3.6.2 Integrated Pest Management (IPM)	2	0	10	0
3.6.3 Integrated Nutrient Management (INM)	2	0	10	0
3.7 Harvest/Postharvest	1	1	9	1
3.8 Planting of hybrid rice	1	1	2	8
3.9 Backyard Vegetable Gardening	2	0	10	0

4.0 FARM PRODUCTIVITY

4.1 Annual gross income in total (P):

Before FFS		After FFS	
Average	Median	Average	Median
P 94452.50	P 50000	P 114775	P 62500

4.2 Annual gross income from farming (P):

Before FFS		After FFS	
Average	Median	Average	Median
P 37090.20	P 22500	P 57975.00	46375

4.3 Has there been a change in your production cost after FFS training?

Increased	Decreased
4	6

4.4 (only for Palayamanan participants)
Do you raise animals at home?

Yes	No
2	3

4.5 (only for Palayamanan participants)
Do you raise fisheries at home?

Yes	No
1	4

4.6 Do you maintain a backyard vegetable garden?

Yes	No
10	0

If the response to 4.4, 5 is YES, proceed; if NO, go to 4.7

4.7 Vegetables grown (top three) in total

1 Eggplant
2 Stringbeans
3 tomato

Animals raised (top three) in total

1 Carabao
2 chicken
3 goat

4.8

CROP	AVERAGE YIELD				Number of crops	
	BEFORE FFS		AFTER FFS		Before FFS	After FFS
	cav/ha	kg/cav	cav/ha	kg/cav		
RICE	52.5	56	89.9	56	NA	NA
VEGETABLE (specify)kg/ha	6216.7		8170		2	4

4.9 Production usage:*

Crop	Percent Utilization			
	Home Consumption		Sold	
	Before FFS	After FFS	Before FFS	After FFS
Rice	44.83%	28.06%	55.2	71.90%
Vegetables (kg/ha)	70%	69%	0	31%

* Some vegetables were given as gifts

Table 3. Profile Summary of Farmer-Participants in the TCP4 FFS Training
Name of province: Lanao del Sur

SUMMARY

Sites	No. of Farmers Respondents
Upper Itil, Balabagan	3
Madaya, Malabang	3
Cadayonan, Balindong	3
Pualas, Buadiposo Buntong	3
Bubong, Poona Bayabao	3
TOTAL	15

No.	Item		Sample farmers of the impact survey conducted in July 2007	
			Number	Percent
1	Sex:	Male	13	87.00%
		Female	2	13.00%
2	Age:	40 yrs old and below	7	47.00%
		41 to 60 yrs old	8	53.00%
		61 yrs old and above		
3	Educational Attainment:	6 yrs and below	5	33.33%
		7 to 10 yrs	5	33.33%
		11 yrs and above	5	33.33%
4	No. of years in farming:	15 yrs and below	6	40.00%
		16 to 30 yrs	9	60.00%
		31 yrs and above		
5	Farm area	Total		
		(1) less than 1 ha		40.00%
		(2) 1.1-3 ha		60.00%
	Rice area (upland)	(1) less than 1 ha	5	33.33%
		(2) 1.1-3 ha	1	7.00%
		(3) 3.1 ha above		
	Rice area (irrigated)	(1) less than 1 ha		
		(2) 1.1-3 ha		
		(3) 3.1 ha above		
	Rice area (rainfed)	(1) less than 1 ha	8	53.33%
(2) 1.1-3 ha		1	7.00%	
(3) 3.1 ha above				
6	Tenure	Owner	10	66.67%
		Share-cropper	2	13.33%
		Leaseholder/renter	3	20.00%
		Mortgage		
		Others		
7	No. of household members	5 and below	4	27.00%
		6 to 10	6	40.00%
		11 and above	5	53.33%
	Female working in the farm	5 and below	15	100.00%
		6 to 10		
		11 and above		
	Male working in the farm	5 and below	15	100.00%
		6 to 10		
		11 and above		

Please fill-up the data by province.

3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4

Type of Technology	2005		2006	
	1. Practiced	2. not practiced	1. Practiced	2. not practiced
3.1 Seed Quality	10	0	15	0
3.2 Land Preparation	10	0	15	0
3.3 Seedbed Management	10	0	13	2
3.4 Crop Establishment	10	0	13	2
3.5 Irrigation and Water Management	8	2	10	5
3.6 Field Management				0
3.6.1 Practice AESA	10	0	15	0
3.6.2 Integrated Pest Management (IPM)	9	1	15	0
3.6.3 Integrated Nutrient Management (INM)	10	0	15	0
3.7 Harvest/Postharvest	9	1	14	1
3.8 Planting of hybrid rice	2	8	0	15
3.9 Backyard Vegetable Gardening	10	0	15	0

4.0 FARM PRODUCTIVITY

4.1 Annual gross income in total (P):	Before FFS		After FFS	
	Average	Median	Average	Median
	P 59950.53	P 42200	P 85958.33	P 70900

4.2 Annual gross income from farming (P):	Before FFS		After FFS	
	Average	Median	Average	Median
	P 32847.20	P 34200	P 65478.33	P 62575

4.3 Has there been a change in your production cost after FFS training?

Increased	Decreased
3	12

4.4 (only for Palayamanan participants)

Do you raise animals at home?

Yes	No
3	0

4.5 (only for Palayamanan participants)

Do you raise fisheries at home?

Yes	No
1	2

4.6 Do you maintain a backyard vegetable garden?

Yes	No
15	0

If the response to 4.4, 5 is YES, proceed; if NO, go to 4.7

4.7 Vegetables grown (top three) in total

1	Tomato
2	Eggplant
3	Cucumber

Animals raised (top three) in total

1	Chicken
2	Duck
3	Goat

4.8

CROP	AVERAGE YIELD				Number of crops	
	BEFORE FFS		AFTER FFS		Before FFS	After FFS
	cav/ha	kg/cav	cav/ha	kg/cav		
RICE	53.73	48.40	99.07	48.20	NA	NA
VEGETABLE(kg/ha)	5316.67		10322.12		3	5

4.9 Production usage:

Crop	Percent Utilization			
	Home Consumption		Sold	
	Before FFS	After FFS	Before FFS	After FFS
Rice	57.27	48.2	42.73	50.47
Vegetables	57	46.73	22.93	52.93

* Includes gifts

Table 4. Summary of Agricultural Technologist characteristics and responses

CHARACTERISTICS General Information	Shariif Kabunsuan N=8		Maguindanao N=5		Lanao del Sur N=8	
	Frequency	Percent/ Average	Frequency	Percent	Frequency	Percent
Sex						
Female	2	24			3	38
Male	6	76	5	100	5	62
Average age		46		46		50
Number of years as AT		10-20 yrs		10-20 yrs		10-20 yrs
Number of Farming household served		175		294		725
Average number of visits per week		1.6 (1-2)		2.6 (2-3)		1 (62%)
Academic background						
Agriculture	8	100	5	100	8	100
Post graduate studies,	1	12, Phd		40, MS	1	12, MS
Training*						
Number of training	3		2		2	
4x	4	50				
3x	1	12	1	20	3	38
2x			3	60	3	38
1x	3	38	1	20	2	24
Specialized Training Course on RBFS for AT of ARRM	(9)		(6)		(5)	
Feb-Mar, 2005	2	24	3	60	4	48
July, 2005	3	38			1	12
Nov-Dec 2005	3	38	2	40		
Feb, 2006	1	12	1	20		
Vegetable Production for ATs	5	62	2	20	5	62
Off-season Vegetable Production for ATs	2	24			1	12

CHARACTERISTICS	Sharif Kabunsuan		Maguindanao		Lanao del Sur	
	Frequency N=8	Percent/ Average	Frequency N=5	Percent	Frequency N=8	Percent
Specialized Training for ATs of ARRM June-July	(4) 4	48	(2) 1	20		
August-September Study Tours	(2)		1	20	1	12
February, 2007	1	12	0	0		
June, 2007	1	12	0	0	2	24
September, 2007			0	0	1	12
Other trainings	6	75	5	100	8	100
Average Rating of Training Program		2.12 (Ave)		2.2 (Ave)		2.62 (Excellent)
3= Excellent	3	38	1	20	5	62
2=Average	3	38	4	80	3	38
1= Poor	2	24	0	0	0	0
Improvement on future training IPM	3	38			1	12
Teaching Materials	1	12				
Refresher	1	12	1	20	1	12
New Technologies available	1	12			2	24
Organic farming			1	20		
Animal/Fish Production			1	20		
Educational Tour			1	20	1	1
Vegetable Production					2	24
Impacts and Sustainability						
Improvement on Method						
Improved significantly	6	76	3	60	2	24
Improved	2	24	2	40	6	76

CHARACTERISTICS	Sharif Kabunsuan		Maguindanao		Lanao del Sur	
	Frequency N=8	Percent/ Average	Frequency N=5	Percent	Frequency N=8	Percent
Improved significantly	5	62	2	40	2	24
Improved	3	38	4	60	6	76
Agricultural Technologies Instructed**						
With Confidence						
All tech					2	24
Cultural Management					4	50
Rice Production			4	80		
Seed Quality	1	12				
Land Preparation	6	76				
Seedbed Preparation	1	12				
Crop Establishment	2	24				
INM	5	62			2	24
IPM/AESA	1	12			3	38
Seed Testing					1	12
Seed Production	2	24				
Water Management	1	12				
Post-harvest	1	12				
With difficulty**						
IPM	4	48	2	40	4	50
Pest and Disease	3	38				
Organic Farming					1	12
Growth stages of rice					1	12
Weather Forecasting					1	12
Seed Production	1	12	1	20		
MOET	1	12				
Fertilizer Computation			1	20	2	24

CHARACTERISTICS	Shariff Kabunsuan		Maguindanao		Lanao del Sur	
	Frequency N=8	Percent/ Average	Frequency N=5	Percent	Frequency N=8	Percent
Vegetable Production					1	12
Diseases of Vegetables and Rice			1	20		
Soil analysis			1	20		
Animal Production			1	20		
Rice-Fish Culture			1	20		
Cultural Management	1	12				
Causes of difficulty**						
1= Ambiguity about the technology	5	62	1	20	4	50
2= Problem of equipment, supply and teaching materials	6	76	2	40	2	24
3= Problem of transportation					1	12
4= Farmers do not understand /not convince	5	62	3	60	2	24
5= Others						
Poor in Mathematics					1	12
No market of the product					1	12
Estimated number of farmers to continue adopting the technologies		(78%)		(81)		(82)
<70	2	24	2	40		
70-80	3	38			6	64
>80	3	38	3	60	2	38
Social , Cultural and Environmental Impacts**						
Positive:						
Developed closer relationship	2	24	3	60	3	38
Bayanihan developed	1	12			2	24
Cooperation on synchronous planting	1	12				

CHARACTERISTICS	Sharif Kabunsuan		Maguindanao		Lanao del Sur	
	Frequency N=8	Percent/ Average	Frequency N=5	Percent	Frequency N=8	Percent
Formed organization	2	24			2	24
Increased income	1	12				
ATs' network widens			1	20		
ATs lobbying for LGU support					1	12
Farmers teaching other farmers					1	12
Seed producers exist					1	12
Farmers' network widens			1	20		
Competency of farmers improved			1	20		
Increased standard of living	1	12			4	50
Thieves in the community disappeared					1	12
Barangay become popular					1	12
Diverse source of food	1	12				
Less rice straw burning	1	12			2	24
Less use of pesticides	5	62			4	50
Improved cropping	1	12				
Peace and order improved			1	20	1	12
Negative:						
Jealousy on profit sharing	2	24			1	12
Increase in yield results to problem in threshing and drying facilities			1	20		
Problem on monitoring due to transportation problems			3	60		
Recognition of the benefits from vegetable production caused encroachment to mountains					1	12

* One respondent knew he has one but cannot recall when so he was not included in the details, but was included in the average number of trainings. ** Multiple responses

Table 5. Household characteristics and responses

CHARACTERISTICS	Shariff Kabunsuan (N=15)		Maguindanao (N=10)		Lanao del Sur (N=15)	
	Frequency	Percent/ Average	Frequency	Percent/ Average	Frequency	Percent/ Average
General Information						
Status in the Project						
Cooperator, Palayaman	1	7			7	
Cooperator, FFS	3	20		20	27	
Farmer Participant	12	73		80	66	
Sex						
Female	2	13.5			13	
Male	13	86.5		100	87	
Average Age		46		43	40	
Sustainability						
Person/Place to which rice is sold						
1=Middlemen						
2=Market	2	13.5		80	47	
3=Millers	9	60			7	
4= Others	4	27				
Traders				20	47	
Home consumption only						
Person/Place to which vegetable is sold						
1=Neighbors	6	40		60	13	
2=Market	5	33		50	60	
3=Middlemen						

4= Others									
Traders	2		13.5						
Home consumption and gifts	2		13.5		10				33
Assurance of seed source for rice									
Yes	15		100		100				87
Reason									
Can buy from PhilRice and seed producers	15		100						13
No									
Reason									
1= Financial constraints									
2= Difficulty on sales route									
3= Others									
Assurance of seed source for vegetables									
Yes	15		100		100				87
Reason									
Can produce their own			100						
Can buy from seed dealers			100						
No									13
Reason									
1= Financial constraints									
2= Difficulty on sales route									
3= Others									
Need for technical assistance after the training									
Yes	15		100		100				80
Reason									
For recent technologies	15		100						13
No									
Reason									
1= Already gained knowledge									

2= Can obtain similar apart fr FFS									
3= Will not attend if with fees									
4= Others									7
Cannot determine									
Most reliable personnel to ask									
1=AT	15		100					60	93
2= Neighbor									
3= FFS/Palayamanan co-farmers								40	
4= Others									
PhilRice Staff									7
Training									
Rating of the FFS/Palayamanan Program			(2.73)					(2.6)	(2.73)
1= Poor									
2= Average	4		27	4				40	4
3= Excellent	11		73	6				60	11
Reasons									
They learned a lot and updated their knowledge on rice and vegetables			100						
Suggested improvements in future trainings									
New knowledge and techniques on rice and vegetable production	8		53					20	14
Seed production	5		33					10	7
Record keeping	1		7						
Mushroom production									7
Reinforce techniques on pesticide application	1		7						
Vegetable production									13
Fertilizer application	1		7						
Organic Farming	1		7					10	7
Organic Fertilizer Production									20

<p>Impacts and other testimonies (FGD and formal interview)</p> <p>Shariff Kabunsuan</p> <p>Positive</p> <ol style="list-style-type: none"> 1. Farmers claimed they were given enough information 2. Living standard increased 3. Have learned the right way of farming 4. Houses improved 5. Paid debts 6. Increase land utilization 7. FFS participants teaching other farmers who did not attend the FFS <p>Negative</p> <ol style="list-style-type: none"> 1. Some ATs are wrongly placed, they are not capable of facilitating, lack knowledge 																																																																																																																																																																																																																																																									
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Negative									
Jealousy – why other farmers were not included in the training									
Lanao del Sur									
Positive									
To continue after the end of the proj. It is for them									
Improved their communication skills, bought more cows, more cash for the family									
Enriched knowledge, Have enough money for the family, Barangay became model									
Operates their farms with confidence, Increase living standard									
No more thieves in the community									
Idle people now work in the farm,									
Their children were able to resume their studies									
Were able to buy draft animals									
Income increased									
Some farmers who did not attend the training are imitating what they are doing									
Negative									
Encroachment in steeper slopes to grow vegetables- posing problems on erosion									

Table 6 Profile Summary of Farmer-Participants in the TCP4 FFS Training
Name of province: BASILAN

SUMMARY

sites = 3

No. of Farmers Respondents = 12

No.	Item		Sample farmers of the adaption survey conducted in November 2007	
			Number	Percent
1	Sex:	Male	6	85.71%
		Female	1	14.28%
2	Age:	40 yrs old and below	3	25.00%
		41 to 60 yrs old	8	66.66%
		61 yrs old and above	1	8.33%
3	Educational Attainment:	6 yrs and below	4	33.33%
		7 to 10 yrs	5	41.66%
		11 yrs and above	3	25.00%
4	No. of years in farming:	15 yrs and below	5	41.66%
		16 to 30 yrs	4	33.33%
		31 yrs and above	3	25.00%
5	Farm area			
	Total	(1) less than 1 ha	1	8.33%
		(2) 1.1-3 ha	10	83.33%
		(3) 3.1 ha above	1	8.33%
	Rice area (upland)	(1) less than 1 ha	0	0.00%
		(2) 1.1-3 ha	0	0.00%
		(3) 3.1 ha above	0	0.00%
	Rice area (irrigated)	(1) less than 1 ha	2	16.67%
		(2) 1.1-3 ha	5	41.67%
		(3) 3.1 ha above	0	0.00%
	Rice area (rainfed)	(1) less than 1 ha	1	8.33%
		(2) 1.1-3 ha	2	16.67%
(3) 3.1 ha above		0	0.00%	
6	Tenure	Owner	7	58.33%
		Share-cropper	4	33.33%
		Leaseholder/renter	2	16.67%
		Mortgage	1	8.83%
		Others	4	33.33%
7	No. of household members	5 and below	6	50.00%
		6 to 10	5	41.66%
		11 and above	1	8.33%
	Female working in the farm	5 and below	8	66.67%
		6 to 10	0	0.00%
		11 and above	0	0.00%
	Male working in the farm	5 and below	12	100.00%
		6 to 10	0	0.00%
		11 and above	0	0.00%

NOTE:

1. Tenure status has multiple answers because some have more than 1 farm lots in varying tenure.
2. Some households have no female farm workers.
3. All percentages were divided by 12, the number of province respondents.
4. The other tenure status in this case is "owned by cooperative" used with no rental or sharing but can be terminated if land is needed by cooperative of other puposes.

Basilan with 12 farmer respondents (2 Palayamanan cooperators, 1 FFS cooperator and 9 FFS participants)

3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4

Type of Technology	2005		2006	
	1. Practiced	2. not practiced	1. Practiced	2. not practiced
3.1 Seed Quality	0	0	8	2
3.2 Land Preparation	0	0	9	1
3.3 Seedbed Management	0	0	9	1
3.4 Crop Establishment	0	0	9	1
3.5 Irrigation and Water Management	0	0	9	1
3.6 Field Management				
3.6.1 Practice AESA	0	0	8	2
3.6.2 Integrated Pest Management (IPM)	0	0	7	3
3.6.3 Integrated Nutrient Management (INM)	0	0	5	5
3.7 Harvest/Postharvest	0	0	10	
3.8 Planting of hybrid rice	0	0	4	6
3.9 Backyard Vegetable Gardening	0	0	10	0

4.0 FARM PRODUCTIVITY

4.1 Annual gross income in total (P):	Before FFS	After FFS
	Average	Average
	Median	Median
	47416	65625
	32500	60000

4.2 Annual gross income from farming (P):	Before FFS	After FFS
	Average	Average
	Median	Median
	35083	48400
	32500	42500

4.3 Has there been a change in your production cost after FFS training?

Increased	Decreased
12	0

4.4 (only for Palayamanan participants)

Do you raise animals at home?

Yes	No
2	0

4.5 (only for Palayamanan participants)

Do you raise fisheries at home?

Yes	No
0	2

4.6 Do you maintain a backyard vegetable garden?	Yes	No
	12	0

If the response to 4.4, 5 is YES, proceed; if NO, go to 4.7

4.7 Vegetables grown (top three) in total

1	string beans
2	squash / upo
3	ampalaya / okra/ cucumber

Animals raised (top three) in total

1	chicken / ducks
2	swine
3	goat /carabao

4.8

CROP	AVERAGE YIELD				Number of crops	
	BEFORE FFS		AFTER FFS		Before FFS	After FFS
	cav/ha	kg/cav	cav/ha	kg/cav		
RICE	47	50	71	50	NA	NA
VEGETABLE (specify)	NA	NA	NA	NA	4	6

4.9 Production usage:

Crop	Percent Utilization			
	Home Consumption		Sold	
	Before FFS	After FFS	Before FFS	After FFS
Rice	60	50	40	50
Vegetables	20	5	80	95

NOTED:

1. The rice production ecosystems are combinations of irrigated and partially irrigated.
2. Swine is raised by some participants who are Christians.

Table 7 Profile Summary of Farmer-Participants in the TCP4 FFS Training
Name of province: Sulu

SUMMARY

sites = 2

No. of Farmers Respondents = 6

No.	Item		Sample farmers of the adoption survey conducted in November 2007	
			Number	Percent
1	Sex:	Male	6	100.00%
		Female	0	0.00%
2	Age:	40 yrs old and below	3	50.00%
		41 to 60 yrs old	3	50.00%
		61 yrs old and above	0	0.00%
3	Educational Attainment:	6 yrs and below	6	100.00%
		7 to 10 yrs	0	0.00%
		11 yrs and above	0	0.00%
4	No. of years in farming:	15 yrs and below	3	50.00%
		16 to 30 yrs	1	16.67%
		31 yrs and above	2	33.33%
5	Farm area	Total (1) less than 1 ha	2	33.33%
		(2) 1.1-3 ha	4	66.67%
		(3) 3.1 ha above	0	0.00%
	Rice area (upland)	(1) less than 1 ha	4	0.00%
		(2) 1.1-3 ha	2	0.00%
		(3) 3.1 ha above	0	0.00%
	Rice area (irrigated)	(1) less than 1 ha	0	0.00%
		(2) 1.1-3 ha	0	0.00%
		(3) 3.1 ha above	0	0.00%
	Rice area (rainfed)	(1) less than 1 ha	0	0.00%
		(2) 1.1-3 ha	0	0.00%
		(3) 3.1 ha above	0	0.00%
6	Tenure	Owner	1	16.67%
		Share-cropper	2	33.33%
		Leaseholder/renter	2	33.33%
		Mortgage	0	0.00%
		Others	1	16.67%
7	No. of household members	5 and below	0	0.00%
		6 to 10	4	66.67%
		11 and above	2	33.33%
	Female working in the farm	5 and below	3	50.00%
		6 to 10	0	0.00%
		11 and above	0	0.00%
	Male working in the farm	5 and below	6	100.00%
		6 to 10	0	0.00%
		11 and above	0	0.00%

NOTE:

1. Not all households have female farm workers.
2. The percentages were all derived by dividing by 6, the total province respondents.
3. The other tenure status in this case is use of land owned by another person without any rental or sharing of produce.

Sulu with 6 farmer respondents (2 Palayamanan cooperators and 4 FSS participants)

3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4

Type of Technology	2005		2006	
	1. Practiced	2. not practiced	1. Practiced	2. not practiced
3.1 Seed Quality	3	2	4	1
3.2 Land Preparation	5	0	5	0
3.3 Seedbed Management	0	5	0	5
3.4 Crop Establishment	3	2	3	2
3.5 Irrigation and Water Management	0	6	0	6
3.6 Field Management				
3.6.1 Practice AESA	4	1	4	1
3.6.2 Integrated Pest Management (IPM)	3	2	3	2
3.6.3 Integrated Nutrient Management (INM)	0	5	0	5
3.7 Harvest/Postharvest	2	3	2	3
3.8 Planting of hybrid rice	0	6	0	6
3.9 Backyard Vegetable Gardening	6	0	6	0

4.0 FARM PRODUCTIVITY

4.1 Annual gross income in total (P):

Before FFS		After FFS	
Average	Median	Average	Median
58167	51000	81167	81000

4.2 Annual gross income from farming (P):

Before FFS		After FFS	
Average	Median	Average	Median
35166	26000	55500	52800

4.3 Has there been a change in your production cost after FFS training?

Increased	Decreased
6	0

4.4 (only for Palayamanan participants)
Do you raise animals at home?

Yes	No
2	0

4.5 (only for Palayamanan participants)
Do you raise fisheries at home?

Yes	No
0	0

4.6 Do you maintain a backyard vegetable garden?

Yes	No
2	0

If the response to 4.4, 5 is YES, proceed; if NO, go to 4.7

4.7 Vegetables grown (top three) in total

1	cassava / eggplant
2	pechay/ampalaya
3	string beans

Animals raised (top three) in total

1	cattle
2	chicken
3	goat

4.8

CROP	AVERAGE YIELD				Number of crops	
	BEFORE FFS		AFTER FFS		Before FFS	After FFS
	cav/ha	kg/cav	cav/ha	kg/cav		
RICE	21	50	33.41	50	NA	NA
VEGETABLE (specify)	NA	NA	NA	NA	4	6

4.9 Production usage:

Crop	Percent Utilization			
	Home Consumption		Sold	
	Before FFS	After FFS	Before FFS	After FFS
Rice	80	75	20	25
Vegetables	25	10	75	90

NOTE:

1. All rice areas are upland.
2. Only 5 respondents planted rice in 2005 and 2006.

Table 8 Profile Summary of Farmer-Participants in the TCP4 FFS Training
Name of province: Tawi-Tawi

SUMMARY

#sites = 2 No. of Farmers Respondents = 6

No.	Item		Sample farmers of the adoption survey conducted in November 2007	
			Number	Percent
1	Sex:	Male	5	83.33%
		Female	1	16.67%
2	Age:	40 yrs old and below	1	16.67%
		41 to 60 yrs old	5	83.33%
		61 yrs old and above	0	0.00%
3	Educational Attainment:	6 yrs and below	3	50.00%
		7 to 10 yrs	1	16.67%
		11 yrs and above	2	33.33%
4	No. of years in farming:	15 yrs and below	2	33.33%
		16 to 30 yrs	2	33.33%
		31 yrs and above	2	33.33%
5	Farm area Total	(1) less than 1 ha	4	66.67%
		(2) 1.1-3 ha	2	33.33%
		(3) 3.1 ha above	0	0.00%
	Rice area (upland)	(1) less than 1 ha	0	0.00%
		(2) 1.1-3 ha	0	0.00%
		(3) 3.1 ha above	0	0.00%
	Rice area (irrigated)	(1) less than 1 ha	0	0.00%
		(2) 1.1-3 ha	0	0.00%
		(3) 3.1 ha above	0	0.00%
	Rice area (rainfed)	(1) less than 1 ha	0	0.00%
		(2) 1.1-3 ha	1	16.67%
		(3) 3.1 ha above	0	0.00%
6	Tenure	Owner	5	83.33%
		Share-cropper	0	0.00%
		Leaseholder/renter	0	0.00%
		Mortgage	0	0.00%
		Others	1	16.67%
7	No. of household members	5 and below	3	50.00%
		6 to 10	3	50.00%
		11 and above	0	0.00%
	Female working in the farm	5 and below	5	83.33%
		6 to 10	0	0.00%
		11 and above	0	0.00%
	Male working in the farm	5 and below	6	100.00%
		6 to 10	0	0.00%
		11 and above	0	0.00%

NOTE:

1. Only 1 of the repondents continues planting rice. Others find upland rice production tedious with production very low. Birds are also very problematic.
2. The other tenure status is "public land" used without any official permission from any entity.
3. One household have no female household farm worker because the wife is a teacher.
4. All percentages are derived with division by 6, the province total respondents.

Tawi-Tawi with 6 farmer respondents (2 Palayamanan cooperators and 4 FFS participants)

3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4

Type of Technology	2005		2006	
	1. Practiced	2. not pra	1. Pract	2. not practiced
3.1 Seed Quality			1	0
3.2 Land Preparation			1	0
3.3 Seedbed Management			1	0
3.4 Crop Establishment			1	0
3.5 Irrigation and Water Management			0	1
3.6 Field Management				
3.6.1 Practice AESA			0	1
3.6.2 Integrated Pest Management (IPM)			0	1
3.6.3 Integrated Nutrient Management (INM)			0	1
3.7 Harvest/Postharvest			0	1
3.8 Planting of hybrid rice			0	1
3.9 Backyard Vegetable Gardening			6	0

4.0 FARM PRODUCTIVITY

4.1 Annual gross income in total (P):	Before FFS		After FFS	
	Average	Median	Average	Median
	56333	49000	71667	57500

4.2 Annual gross income from farming (P):	Before FFS		After FFS	
	Average	Median	Average	Median
	31667	25000	44167	36500

4.3 Has there been a change in your production cost after FFS training?

	Increased	Decreased
	6	0

4.4 (only for Palayamanan participants)
Do you raise animals at home?

	Yes	No
	2	0

4.5 (only for Palayamanan participants)
Do you raise fisheries at home?

	Yes	No
	0	2

4.6 Do you maintain a backyard vegetable garden?

	Yes	No
	6	0

If the response to 4.4, 5 is YES, proceed; if NO, go to 4.7

4.7 Vegetables grown (top three) in total

1	cassava/eggplant
2	string beans
3	ampalaya

Animals raised (top three) in total

1	cattle
2	chicken
3	goat

4.8

CROP	AVERAGE YIELD				Number of crops	
	BEFORE FFS		AFTER FFS		Before FFS	After FFS
	cav/ha	kg/cav	cav/ha	kg/cav		
RICE	0		35	50	NA	NA
VEGETABLE (specify)	NA	NA	NA	NA	3	5

4.9 Production usage:

Crop	Percent Utilization			
	Home Consumption		Sold	
	Before FFS	After FFS	Before FFS	After FFS
Rice	0	100	0	0
Vegetables	10	5	90	95

NOTE:

- Only one of the farmers interviewed continued planting rice after their FFS training
No produce in the year before FFS because crop was totally damaged by strong winds.

事前評価調査に関する資料

第 1 章 事前評価調査の概要

1-1 調査団派遣の経緯

JICA の帰国研修員フォローアップによる支援の下に研修活動を行ってきた（2002 年度、2003 年度）。この研修を継続させ裨益地域、農家数を本格的に拡大するため。

1-2 調査団の構成

本事前評価調査団の構成は以下の通りである。

総括	吉田 勝美（JICA フィリピン事務所 次長）
協力計画	今村 誠（ " 所員）
	神谷 哲郎（ " ARMM 地域担当）
プロジェクト効果分析	須藤 晃（株式会社 三祐コンサルタンツ）

1-3 調査団日程

現地調査期間：2004 年 7 月 26 日～8 月 12 日

フィルライス本所・ミッドサヤブ支所との協議、ARMM 自治区政府関係者、USM との協議及び現地調査（種苗生産場）

1-4 事前評価の方法

評価は、評価 5 項目による評価より行われた。評価にあたって、治安上の制約により、先方実施機関からの要請書、各機関の実施能力に係る資料、現地における担当者との協議等の結果を中心として、さらには一昨年度、昨年度と実施された帰国研修員フォローアップでの協力内容及び実施状況、実施済サイトの現況調査結果を用いた。

第2章 事業実施の経緯と概要

2-1 相手国政府の長期計画と実施機関

2-1-1 ARMM 自治区における農業普及の現状

1992年の地方自治法により、政府による農業普及活動は中央の農業省から地方自治体へと移管された。これにより、州（Province）、市（City）及び町（Municipality）の首長が地方の農業政策の責任者となり、各自治体政府の農業局（Agricultural Office）が農業普及の中心となった。しかしながら、農業局が必要な予算、技術、特に豊富な技術を有する普及員を数多く継続的に雇用している地方自治体が少なく、地方自治体による農業普及には限界があり、実際は中央政府の関係省庁・研究機関がそれぞれの特定分野において地方自治体に対する支援・技術指導を行なっている。

一方、ARMM 自治区は「自治区」という独特の行政制度のため、地方自治体への分権（Devolution）がなされず、ARMM-DAF（農業水産局）に所属する AT が普及活動を行っている。しかしながら、ARMM-DAF に雇用されている AT 以外に州に雇用されている AT も存在し、指揮命令系統の混乱が指摘されている（また、バシラン州及びマラウィ市は ARMM 自治区加入が地方自治法施行後であるため、普及員が地方自治体の所属となっている）。

2-1-2 ARMM の社会経済状況、農業生産状況

1) 農業生産状況

ARMM 地域における主要農産物の収穫量と作付面積は下表の通りである。

表 ARMM 地域における農業生産状況

収穫面積 (ha)	マキンダ ナオ	南ラオ	バシラン	スルー	タウィ-タウィ	ARMM 計	全国	対全国比 (%)
コメ								
灌漑	30,363	12,665	455	0	0	43,483	2,700,807	1.61
天水	71,774	27,208	1,847	4,150	1,466	106,445	1,333,897	7.98
コーン								
白	93,252	155,890	2,712	1,412	1,191	254,457	1,573,636	16.17
黄	42,127	32,824	0	0	0	74,951	936,888	8.00
キャッサバ	798	35,520	17,445	25,933	18,595	98,291	210,699	46.65
大豆	512	41	90	1,200	339	2,182	133,865	1.63
バナナ	12,501	4,266	7,092	2,551	718	27,128	348,241	7.79
ヤシ	93,719	62,667	67,853	66,901	35,311	326,451	4,085,745	7.99
コーヒー	4,429	2,353	3,296	2,260	129	13,567	147,148	9.22
ゴム	425	0	7,310	0	0	7,735	80,995	9.55

収穫量 (トン)	マギンタ ナオ	南ラオ	ハシラン	スルー	タウィ-タウィ	ARMM 計	全国	対全国比 (%)
コメ								
灌漑	94,825	35,906	1,341	0	0	132,072	9,433,714	1.40
天水	146,734	57,659	2,988	5,810	2,286	215,477	2,976,202	7.24
コーン								
白	170,445	270,164	2,386	1,048	979	445,022	1,889,690	23.55
黄	122,455	130,134	0	0	0	252,589	2,622,939	9.63
キャッサバ	5,279	654,448	202,769	160,783	84,531	1,107,810	1,770,796	62.56
大豆	2,781	189	200	8,055	501	11,726	855,912	1.37
バナナ	185,714	38,323	22,236	18,101	9,903	274,277	4,155,712	6.60
ヤシ	403,582	117,669	171,825	219,693	160,427	1,073,187	12,837,165	8.36
コーヒー	3,834	273	2,875	8,418	147	15,548	117,967	13.18
ゴム	93	0	19,328	0	0	19,421	188,920	10.28

出典：Bureau of Agricultural Statistics (BAS),2002

ARMM 地域における食糧の需要と供給の状況は、下表の通りである。

表 ARMM 地域における食糧需要／供給状況（2002）（単位：ton/年）

項目	マギンタ ナオ	南ラオ	ハシラン	スルー	タウィ-タウィ	ARMM 計
需要						
コメ	105,476	88,092	43,821	81,588	42,437	361,415
キャッサバ	24,461	20,430	10,163	18,921	9,842	83,818
供給						
コメ	155,227	92,443	2,073	2,691	2,914	253,548
キャッサバ	5,626	517,337	205,657	154,996	89,641	970,254
過不足						
コメ	49,751	4,351	- 41,748	- 78,897	- 39,524	- 107,867
キャッサバ	- 18,835	493,907	195,494	136,075	79,799	886,436

出典：Comprehensive Basic Survey of the ARMM, Final Report, JICA 2003

2) ARMM 政府の農業開発戦略

ARMM 政府は 2003 年に、地域中期開発計画(2003-2006)を策定した。この中で ARMM 政府は、地域の開発の阻害要因として貧困、限定された民間投資、労働力の減少、治安問題及び保健医療施設持続的な農業及び漁業開発を開発方針の中心として、具体的には下記のような開発重点戦略を打ち出している（Development Framework Plan 2002-2004）。

2-2 事業実施の背景・案件要請規模

2-2-1 事業実施の背景及び経緯

本件は 2002 年度、2003 年度に実施した帰国研修員フォローアップとして実施した類似の国内研修（Specialized Training Course on Rice-Based Farming System for Agricultural Technologists and Farmers Leaders）の実績を踏まえ、その効果を ARMM 5 州において拡大するため技術協力プロジェクトとして形成されたものである。したがって、その事業戦略、内容、実施機関の協力体制等は過去 2 年の上述事業を基本的に継続し、より多くの AT、農民へと対象数を拡大して現地国内研修を行うものである。

2-2-2 過去の協力内容

上記の帰国研修員フォローアップは年間約 5 百万ペソの予算規模で 2 年にわたり実施された。内容は下記の通りである。

1) 2002 年度

2002 年度の協力内容は機材供与、施設改修及び現地国内研修（2 回）であった。

a) 研修

第 1 回研修は 2003 年 2 月 3 日-28 日フィルライス本所において実施された。ARMM 自治区の対象 5 州から計 30 名の AT（普及員）に対して実施された。

第 2 回は 2003 年 3 月 10 日-21 日、第 1 回研修を受講した 30 名の AT が ATI ミッドサヤフ、USM、フィルライス・マラウィ分所、サンボアング市の BFAR-RTC において、研修講師となって農家指導を行った。研修対象は農家リーダー 192 人であった。

b) 機材供与

研修用機材が中心で約 50 万ペソ分、また、施設改修としてフィルライスのミッドサヤフ支所の冷蔵保管室（2 室）と講堂の改修が実施された。

2) 2003 年度

2003 年度より本格的に Palayamanan 研修（総合農業研修）、FFS 研修（小規模研修）が開始された。

a) Palayamanan 研修（総合農業研修）

2003 年度は南ラナオ州、マギンダナオ州、バシラン州の 3 ヶ所において総計 95 名の AT に対する研修を実施した（1 回 2 週間、1 回 30 名強）。

b) Farmer's Field School=FFS 研修

ARMM 全州の 18 ヶ所において総計 450 名の農家（1 箇所約 30 人程度）に対する研修を実施した。

c) Bahay Kubo（家庭菜園）

家庭菜園の造成・管理方法にかかる研修を実施した。

d) 種苗生産場の整備（USM、ARMM-IARC、MSU の 3 ヶ所に対し各 10 万ペソ）

e) 研修用資機材供与（約 1 百万ペソ）

f) 設改修（フィルライス・ミッドサヤフ支所の実験棟の改修）

さらに、本件技プロ開始の前段階準備として社会経済調査（ベンチマーク調査）がマギンダナオ、ラナオ、バシラン各州の FFS 研修の実施場所が無作為抽出された 138 農家を対象に行われ、年齢構成、家族構成、教育、居住年数、収入源、土地所有、主要作物、食事習慣、社会インフラへのアクセスといった項目で基礎データが収集された。同時に、広報活動も開始され、フリップチャート（4 言語）、ラジオ CM の制作／放送が行われた。

第3章 プロジェクトの基本計画および運営実施体制

3-1 プロジェクトの基本計画

3-1-1 プロジェクトの基本戦略

1) AT に対する研修

AT に対する研修の主目的は Palayamanan 及び FFS の研修講師の育成である。AT3 名が 1 グループとなり、1 名は研修、もう 1 名はサイトでの研修講師に従事する。当初は 2005 年度までの基礎研修を受講した同じ AT が 2 回目の研修(2007 年度)を受講予定であったが、一元的に AT のみに応用研修を行うのではなく、Farmers Leader・Cooperator に対する技術支援も効果的であることが確認されたため、これらに対するスタディツアー・研修を実施している。また、関係機関 (PAO、ARMM-DAF 等) への研修も実施している。

2006 年度は基礎研修の結果をモニタリングのみで、AT 研修は実施しない予定であったが、野菜栽培研修のニーズが高かったことから、計画を変更し追加した。

2) Palayamanan 展示場での農家研修実施

Palayamanan (英語で Rice-Based Farming Technology、総合農業研修) は協力農家の既設圃場を利用して、展示場所として準備する (事業期間内に 20 ヶ所を準備)。この研修においては、a) AT に対する営農手法及び普及方法の研修、b) 近隣より集まってくる農民に対し、コメ、野菜、家畜、水産、果樹などの幅広い品目を対象として総合的な営農技術の農民への展示/研修の 2 つを同時に行う。

Palayamanan 展示場の場所選定については下記のような基準を用いる。

1. 最低 1 ヘクタールの土地を展示場として提供できる協力農家がいること。
2. 土地を提供する協力農家の住居が農地内または近傍にあること。
3. AT のモニタリングや参加農家の訪問が容易な、アクセスの良い場所であること。
4. 安定した農業用水が供給されていること。
5. カウンタパートコストとして、労務及び資材の提供を行うこと。
6. 協力農家が FFS 研修のうち Diversified Farming に関するコースを受講し終了していること。
7. 協力農家がリーダーシップ及びコミュニケーションスキルを有すること。
8. 他の農家を説得できる影響力を有すること。

また、展示場で実際に研修対象として導入される作物の選定については下記を考慮する。

1. 自然条件 (土壌、農業用水供給状況、その他栽培条件)
2. 農民の希望する作物であること (研修対象農家の希望する上位 5 作物は最低限 Palayamanan 展示場に導入する)。

3. 導入作物の市場性が確保されていること。
4. 導入作物の種苗がその地域において入手可能（購入、再生産）であること。

3) Farmer's Field School（略称 FFS）での農家研修の実施

FFS は AT により選定された総計 138 ケ村にて実施される。FFS には小規模の展示圃が併設され、稲作及び野菜の栽培に関する実習が行われる。上記 Palayamanan 研修との違いは、a) Palayamanan が畜産、果樹及び水産（後者二つを含まないものもある）総合農業技術の展示／研修であるのに対し、b) FFS 研修は稲作・野菜の栽培に特化することにあり、Palayamanan も FFS としての農家研修機能を有する。各サイトでの研修は 1 年で、稲作（6 月－10 月）、野菜栽培（11 月－4 月）に分けて実施される（一部サイトでは野菜栽培が先行）。FFS での農家研修は本プロジェクトによって研修を受けた AT がフィルライスのスタッフ（Field Assistant）の支援を受けて行う。研修は 1 週間に半日程度実施。

FFS 研修場の場所選定については下記のような基準を用いる。

1. モニタリング活動が効率的に行え、また周辺地域の農民が訪問し易いような、アクセスの良い場所であること。
2. 協力農家が、最低限でも 0.5ha ほどの水田があり、また展示及び研修の場として 1000 平方メートル程度の農地を保有していること。
3. 参加農家が稲作中心営農技術研修につき、稲作の場合最低 4 ヶ月、野菜の場合 3～4 ヶ月の期間を通じて、1 週間に 1 回の研修に参加する意思があること。
4. 参加農家が家庭菜園用の土地として、野菜栽培を行える裏庭などを所有していること。
5. 普及員が村落と協力する意思をもち、かつ村落から信頼されていること。
6. （同地域の）リーダー、協力農家、参加農家がコミュニティにおいて尊敬され、影響力を保有しており、農家間の情報共有を促進することが可能であること。

4) Bahay Kubo（家庭菜園）への支援・促進

Bahay Kubo は上記 FFS 参加農家を対象として、研修の成果を発現させるため、野菜の種苗を提供し継続的な指導を実施することで、各農家が自分の裏庭で家庭菜園により自家消費分の野菜を生産することを支援する。

Annex：質問状調査フォームに係る検討結果

フィルライス側が Impact survey に用いたフォームは次ページの Form-1 である。これについて、“3.0 Rice & Vegetable Production Technologies from TCP-4”の項目では稲作について 3.1~3.8 の 8 種類の技術があげられているが、分類に誤りがあり、正確には“3.7 Integrated Nutrient Management” (INM)が加わる。また、“3.8 Planting of hybrid rice”は栽培技術にかかる質問ではない。よって INM を加えて hybrid rice を除いた 8 種類を示すのが、稲作技術の分類として正確である。よって、以下ではこれら 8 種類として議論を進める。

Form-1 による調査の確認補完のためにフィリピン側評価者に用いてもらったのは、Form-2 と Form-3 である。今後の終了時評価調査の実施に当たっては再び同様の調査が必要になることから、中間評価報告書に係る会合の後で、フィリピン側評価者から PhilRice 側の調査実施者に対してフォーム改善に係る助言をしてもらった。その結果を以下に要約する。

- ①これらフォームで採用している、回答をコード化して選択させる方法は有効である。
- ②農家の採用状況に係る質問について、Form-1 では稲作に係る 8 種類の技術それぞれについて小項目で詳細な技術名があげられているが、Form-2 では 8 種類の大項目だけである。実施結果として Form-2 のように大項目だけにするほうが有効である。さらに、農民への質問法として、どんな技術を採用しているかを尋ねて調査者が 8 種類の中から選択して記入する方法が有効である。
- ③Form-1 でも Form-2 でも野菜についての技術項目が示されていないが、野菜についても稲作と同様に教授した 5 種類の技術名をあげて調査したほうがよい。
- ④“3.6.1 Practice AESA”への回答を得ることは難しい。
- ⑤Form-2 の“4.8”で野菜の収量について研修前と研修後の数値を質問しているが、この回答を得ることは非常に難しい。
- ⑥Form-2 の“4.9”で生産物の用途として自家消費と販売の 2 種類をあげているが、モスLEM 社会の習慣として農家は隣人へ贈与している事実があるので、“others”の項目を加筆すべきである。
- ⑦農家収入の調査は難しい。フィリピン側評価者は生産量を聴取してから消費量を予測して販売量を求めるなどの工夫を行ったが、類似の方法を用いるべきである。
- ⑧Form-3 の Section 3 は不要である。

**TECHNICAL COOPERATION PROJECT FOR RICE-BASED FARMING SYSTEMS TRAINING AND
SUPPORT PROGRAM FOR THE AUTONOMOUS REGION IN MUSLIM MINDANAO (ARMM)**

PhilRice - JICA Technical Cooperation Project 4 for ARMM

FARMERS ADOPTION SURVEY

1.0 PRELIMINARY INFORMATION			
1.1	Province: _____	1.4	Name of Enumerator: _____
1.2	Municipality: _____	1.5	Date of Interview: _____
1.3	Barangay: _____	1.6	Contact No. of Enumerator: _____

2.0 PROFILE			
2.1	Name of farmer: _____	2.7	Tenure Status
2.2	Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female		Rice <input type="checkbox"/> Vegetable <input type="checkbox"/>
2.3	Age of farmer: _____		Owner <input type="checkbox"/> <input type="checkbox"/>
2.4	Educational attainment: _____		Share-cropper <input type="checkbox"/> <input type="checkbox"/>
2.5	No. of years in farming: _____		Leaseholder/renter <input type="checkbox"/> <input type="checkbox"/>
2.6	Farm area: _____		Mortgage <input type="checkbox"/> <input type="checkbox"/>
	Size* Type**		Others (specify below) <input type="checkbox"/> <input type="checkbox"/>
	Rice _____		
	Vegetable _____	2.8	Household size: _____
		2.9	No. of household members working in the farm:
			_____ Female _____ Male

Codes: * 1-- less than 1 ha 2 -- 1-3 ha 3 -- 3.1ha above
** 1-- upland 2 -- irrigated lowland 3 -- rainfed lowland

3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4			
Please check technologies that you practiced for each cropping year.			
Codes: *** 1 - practiced 2 - not practiced 3 - practiced, but with modifications			
ITEMS	2006***	2007***	Remarks
3.1 Seed Quality			
3.1.1 Used certified/good seeds of a recommended variety			
3.1.2 Chooses a variety with yield potential, market demand and tested in technology demonstrations or adaptability trials			
3.2 Land Preparation			
3.2.1 Cleaning and repairing dikes and ditches - compacted and properly maintained 15cm high x 20cm wide to prevent rat burrowing			
3.2.2 Stubbles and weeds well decomposed			
3.2.3 Proper plowing - plowed under weeds and stubbles 10-15cm deep			
3.2.4 Proper harrowing - at least twice at 1 week interval; 1st harrowing done a week after plowing and the 2nd harrowing, across the direction of the 1st plow			
3.2.5 Proper leveling - should have 2-3 cm water depth and no high and low soil spots after final leveling			
3.3 Seedbed Management			
3.3.1 Recommended seedbed size of 400sq.m.			
3.3.2 Proper seedbed location - near the water source, protected from pests and with good drainage			
3.4 Crop Establishment			
3.4.1 Synchronous planting after a fallow period of at least 1 month from harvest to establishment of the next crop			
3.4.2 Follow the local planting calendar			
3.4.3 Sufficient number of healthy seedlings - for transplanted: 20-40kg/ha for inbred and 15-20kg/ha for hybrid			
3.4.4 Recommended 1-3 seedlings/hill			

ITEMS	2006***	2007***	Remarks
3.4.5 20 to 25 day-old seedlings			
3.4.6 20cm x 20cm planting distance			
3.5 Irrigation and Water Management			
3.5.1 Avoided excessive water or drought stress			
3.5.2 Achieved 3-5cm water depth every irrigation time from early tillering until 1-2 weeks before crop maturity/harvest			
3.5.3 Drains water/stop irrigation 1-2 weeks before harvest			
3.6 Field Management			
3.6.1 Practice AESA			
3.6.2 Integrated Pest Management (IPM)			
3.6.2.1 No significant yield loss due to pests			
3.6.2.2 Conserve beneficial organisms			
3.6.2.3 Uses resistant varieties for major pests in the area			
3.6.2.4 Integrated Rodent Management			
3.6.2.5 Integrated Weed Management			
3.6.2.6 Integrated Disease Management			
3.6.3 Integrated Nutrient Management (INM)			
3.6.3.1 Sufficient nutrients at early PI to flowering			
3.6.3.2 Manage N needs based on LCC and assesses other nutrients based on MOET or Nutrient Omission Plot			
3.7 Harvest/Postharvest			
3.7.1 Harvested when 80-85% of the grains are ripe			
3.7.2 Thresh palay not later than 1 day after harvest			
3.7.3 Proper seed storage - good aeration, uses proper storage bins/sacks			
3.7.4 Proper drying method - achieved 14% MC during storage for seeds			
3.8 Planting of hybrid rice			
3.9 Backyard Vegetable Gardening			
3.9.1 Additional vegetable crops grown after joining the training			
3.9.2 Ventured in vegetable growing for commercial purposes			

4.0 BACKYARD VEGETABLE GARDENING TECHNOLOGIES			
Codes: * / 1 - totally practiced 2 - practiced, but with modifications			
Top 3 most preferred and practiced technologies	Crops	Mode of practice*/	Remarks
Least preferred technologies		Remarks	

5.0 FARM PRODUCTIVITY

5.1 Estimated annual gross income (P): before FFS: _____ after FFS: _____

5.2 If there is an increase in income, how was your extra income spent?

Items	Amount Spent (P)
1	
2	
3	
4	
5	

5.3 Has there been an increase/decrease in your production cost after FFS training? Increased Decreased

5.4 Vegetables grown and animals raised (Top 3)

Vegetables	Animals

5.5 Rice yield and vegetable sufficiency

Average yield for rice			
Before FFS		After FFS	
cav/ha	kg/cav	cav/ha	kg/cav

Vegetable sufficiency level	Before	After
Buying vegetables from the market		
Not enough for home consumption		
Just enough for home consumption		
Enough for home consumption and a little extra for neighbors		
For home consumption and market		
<i>Estimated income:</i>		

5.6 Percent utilization of farm products

Crop	Percent Utilization (%)			
	Before FFS training		AFTER FFS training	
	Consumed	Sold	Consumed	Sold
Rice				
Vegetables				

5.7 How many farmers did you share the technologies with, including access to good quality seeds?

TECHNICAL COOPERATION PROJECT FOR RICE-BASED FARMING SYSTEMS TRAINING AND
SUPPORT PROGRAM FOR THE AUTONOMOUS REGION IN MUSLIM MINDANAO (ARMM)
PhilRice - JICA Technical Cooperation Project 4 for ARMM

ADOPTION SURVEY July 2007

1.0 PRELIMINARY INFORMATION					
1.1	Province: _____	1.4	Name of Enumerator: _____		
1.2	Municipality: _____	1.5	Date of Interview: _____		
1.3	Barangay: _____	1.6	Contact No. of Enumerator: _____		
1.7	Demo-farm participated: 1. Palayamanan 2. FFS				
2.0 PROFILE					
2.1	Name of farmer: _____	2.7	Tenure Status		
2.2	Sex <input type="checkbox"/> Male <input type="checkbox"/> Female		Rice <input type="checkbox"/> Vegetable <input type="checkbox"/>		
2.3	Age of farmer: _____		Owner <input type="checkbox"/> <input type="checkbox"/>		
2.4	Educational attainment: _____		Share-cropper <input type="checkbox"/> <input type="checkbox"/>		
2.5	No. of years in farming: _____		Leaseholder/renter <input type="checkbox"/> <input type="checkbox"/>		
2.6	Farm area		Mortgage <input type="checkbox"/> <input type="checkbox"/>		
	Size* Type**		Sharing Scheme <input type="checkbox"/> <input type="checkbox"/>		
	Rice _____		Others (specify below) _____		
	Vegetable _____	2.8	Household size: _____		
		2.9	No. of household members working in the farm:		
			_____ Female _____ Male		
Codes: * 1-- less than 1 ha 2 --1.1-3 ha 3-- 3.1ha above ** 1-- upland 2 -- irrigated lowland 3 -- rainfed lowland					
3.0 RICE & VEGETABLE PRODUCTION TECHNOLOGIES FROM TCP-4					
Codes: 1 - practiced 2 - not practiced					
	ITEMS	2005	2006		
		Reasons for adopting/not adopting			
3.1	Seed Quality				
3.2	Land Preparation				
3.3	Seedbed Management				
3.4	Crop Establishment				
3.5	Irrigation and Water Management				
	ITEMS	2006	2007		
		Reasons for adopting/not adopting			
3.6	Field Management				
3.6.1	Practice AESA				
3.6.2	Integrated Pest Management (IPM)				
3.6.3	Integrated Nutrient Management (INM)				
3.7	Harvest/Postharvest				
3.8	Planting of hybrid rice				
3.9	Backyard Vegetable Gardening				
4.0 FARM PRODUCTIVITY					
4.1	Annual gross income in total (P):	before FFS: _____	after FFS: _____		
4.2	Annual gross income from farming (f)	before FFS: _____	after FFS: _____		
4.3	Has there been a change in your production cost after FFS training?	<input type="checkbox"/> Increased	<input type="checkbox"/> Decreased		
4.4	(only for Palayamanan participants) Do you raise animals at home?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	Reasons: 1. _____				
	2. _____				
4.5	(only for Palayamanan participants) Do you raise fisheries at home?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	Reasons: 1. _____				
	2. _____				
4.6	Do you maintain a backyard vegetable garden?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	Reasons: 1. _____				
	2. _____				
If the response to 4.4, 5 is YES, proceed; if NO, go to 4.7					
4.7	Vegetables grown (top three)	Animals raised (top three)			
	1. _____	1.	_____		
	2. _____	2.	_____		
	3. _____	3.	_____		
4.8		AVERAGE YIELD			
	CROP	BEFORE FFS			
		AFTER FFS			
		cav/ha	kg/cav		
		cav/ha	kg/cav		
		Number of crops			
		Before FFS			
		After FFS			
	RICE	NA			
	VEGETABLE (specify)				
4.9	Production usage:				
	Crop	Percent Utilization			
		Home Consumption		Sold	
		Before FFS	After FFS	Before FFS	After FFS
	Rice				
	Vegetables				

Form-3: 中間評価調査団が用いた聞き取り形式の質問状

Mid-term Evaluation Survey

Questionnaire for Farming household



Interviewer: _____, Interviewed date: _____ / _____, 2007

Municipality: _____, Village: _____,

1. Maguindanao
2. Lanao del Sur
3. Basilan
4. Sulu
5. Tawi-tawi

Status in the Project (please encircle the number Code) :

Code: 1. Cooperator (Palayamanan) 2: Cooperator (FFS) 3: Farmer (participants)

SECTION 1 General Information

1-1 Name of Interviewee _____ Sex: M/F Age: _____

1-2 Which persons/places do you sell rice?

Code: 1. Middlemen 2. Market 3. Millers 4. Others (Please Specify: _____)

1-3 Which persons/places do you sell vegetables?

Code: 1. Neighbors 2. Market 3. Middlemen 4. Others (Please Specify: _____)

SECTION 2 Sustainability

2-1 (Procurement of seedlings) After the support by the Project ends, do you think you can continuously obtain seeds as you do now?

Code: 1. Yes 2. No 3. Cannot determine Yes/No

2-2 (To the person who answered 2 or 3) what is the primary reason for you not to be sure?

Code: 1. (may) Have financial constraints to purchase seedlings

2. (may) Have difficulty to find sales route (difficult to find suppliers)

3. other: _____

2-3 (Procurement of seedlings) After the support of the Project ends, do you think you can continuously obtain seeds as you do now?

Code: 1. Yes 2. No 3. Cannot determine Yes/No

2-4 (To the person who answered 2 or 3) what is the primary reason for you not to be sure?

Code: 1. (may) Have financial constraints to purchase seedlings

2. (may) Have difficulty to find sales route (difficult to find suppliers)

3. other: _____

2-5 Do you still need technical assistance after completing the training?
Code: 1. Yes 2. No 3. Cannot determine Yes/No

2-6 (To the person who answered 2 or 3) what is the primary reason for you not to be sure?
Code: 1. Already gained a certain level of agricultural techniques (unnecessary, more)
2. Can obtain similar opportunities to learn apart from FFS
3. May not participate, if attendance requires some participation fees
4. Other: _____

2-7 After the project ends, who do you think will be the most reliable personnel to ask instruction of agricultural techniques when you need?
Code: 1. AT 2. Neighborhood 3. FFS/Palayamanan co-farmers
4. Other: _____

SECTION 3. Others (TRAINING)

3-1 How do you rate the Palayamanan/FFS Program?
Code: 1. Poor 2. Average 3. Excellent

3-2 What improvements would you like to see in future trainings?
1. _____
2. _____
3. _____

-END-

Mid-term Evaluation Survey**Questionnaire for AT**

Interviewer: _____, Interviewed date: _____ / _____, 2007

Municipality: _____, Village: _____,

1. Maguindanao
2. Lanao del Sur
3. Basilan
4. Sulu
5. Tawi-tawi

SECTION 1 General Information

1-1 Name of Interviewee _____ Sex: M / F Age: _____

1-2 How many years have you engaged as AT? _____

Code: 1. Less than 5 years; 2. 5-10 years; 3. 11-20 years; 4. more than 20 years

1-3 Total number of farming households you are offering instruction of agricultural techniques (about) _____ persons

1-4 How often do you visit farms per week in average?
_____ Times a week

1-5 a. What is your academic background?

Code: 1. Agriculture 2. Others (Please specify: _____)

b. Did you undergo any post-graduate studies? If yes, please specify: _____

SECTION 2 Training2-1 How many times have you participated in the Training Program since February 2005 (the project started)? _____
_____ Times since February 2005

Title of training	Date	Venue	No. of participants	Focus of training
Specialized Training Course on RBFS for Agricultural Technologists of ARMM	Feb. 21 to Mar. 4, 2005 (two weeks)	USM Hostel, Kabacan, North Cotabato	26 Maguindanao- 12 Lanao Sur 2 Basilan 4 Sulu 4 Tawi-tawi 4	rice and rice-based farming systems
	July 12-22, 2005 (two weeks)	USM Hostel, Kabacan, North Cotabato	33 Maguindanao- 13 Lanao Sur	rice and rice-based farming

				9 Basilan 1 Sulu 5 Tawi-tawi 5	systems
	Nov. 21-Dec 2, 2005 (two weeks)	USM Hostel, Kabacan, North Cotabato		35 Maguindanao- 15 Lanao Sur 8 Basilan 4 Sulu 3 Tawi-tawi 5	rice and rice-based farming systems
	Feb. 13-24, 2006 (two weeks)	USM Hostel, Kabacan, North Cotabato		22 Maguindanao- 7 Lanao Sur 6 Basilan 3 Sulu 1 Tawi-tawi 5	rice and rice-based farming systems

Vegetable Production Training for ATs	December 3-9, 2006	USM Hostel, Kabacan, North Cotabato		35 Maguindanao- 19 Lanao Sur 16	Vegetable production
	Jan. 21-27, 2007	Cecille's Pension House, Tumaga Porcentro, Zamboanga City		32 PhilRice Staff- 1 Lanao Sur 1 Basilan 10 Sulu 11 Tawi-tawi 9	Vegetable production

Title of training	Date	Venue	No. of participants	Focus of training
Off-season Vegetable Product'n Training for ATs	Feb 19-21, 2007	EastWest Seed Company, San Rafael. Bulacan	22 PhilRice Staff- 2 Maguindanao- 7 Lanao Sur 4 Basilan 3 Sulu 3 Tawi-tawi 3	Vegetable production
Specialized Trainings for Agricultural Technologists of ARMM	June 17 to July 5, 2007	EastWest Seed Company, San Rafael. Bulacan	22 PhilRice Staff- 1 Maguindanao- 8	Vegetable production Rice and

		PhilRice CES Cecille's Pension House, Tumaga Porcentro, Zamboanga City	Lanao Sur 4 Basilan 3 Sulu 3 Tawi-tawi 3	rice-based farming systems Pest management - vegetable
Specialized Trainings for Agricultural Technologists of ARMM	August 27 – Sept. 11, 2007	IPB, UP Los Banos PhilRice CES	24 PhilRice Staff- 3 Maguindanao- 8 Lanao Sur 4 Basilan 3 Sulu 3 Tawi-tawi 3	Crop and vegetable seed production Rice and rice-based farming systems (hands-on)

Summary of study tours conducted

Participants	No. of pax	Duration	Places visited	Remarks
ATs	20	Feb. 22-28, 2007	Pangasinan; Ilocos Norte/Sur; Benguet/ Baguio City Science City of Muñoz, Nueva Ecija	Part of the training
ATs	20	June 21-25, 2007	Pangasinan; Ilocos Norte/Sur; Benguet/ Baguio City Science City of Muñoz	Part of the training

2-2 Have you attended other training programs other than those enumerated above?

Code: 1. Yes 2. No

2-3 How do you rate the Training Program?

Code: 1. Poor 2. Average 3. Excellent

2-4 What would you like to improve in future trainings?

1. _____

2. _____

3. _____

SECTION 3 Impact/Sustainability

3-1 Do you think that the way and contents of your instruction on farming practice s to farmers have changed since you received training by the Project?

Code:

Method: 1. Improved significantly 2. Improved 3. Almost the same as before 4. Worse

Contents: 1. Improved significantly 2. Improved 3. Almost the same as before 4. Worse

3-2 (To the personnel answered 3 or 4) what are the reasons not to change or worse? (multiple answers)

Code:

Method:

1. Although I gained knowledge and skills, it is difficult to apply those in my instruction fields due to different environmental condition
2. Although I gained knowledge and skills, it is difficult to apply those due to lack of necessary equipment/materials.
3. I could not fully absorb in training opportunities (needed more time to reach such technical level).
4. I think I had such knowledge and skills even before received trainings (that is why “almost the same”)
5. Other: _____

Contents:

1. Although I gained knowledge and skills, it is difficult to apply those in my instruction fields due to different environmental condition
2. Although I gained knowledge and skills, it is difficult to apply those due to lack of necessary equipment/materials.
3. I could not fully absorb in training opportunities (needed more time to reach such technical level).
4. I think I had such knowledge and skills even before received trainings (that is why “almost the same”)
5. Other: _____

3-3 (To all interviewees) What agricultural techniques can you instruct farmers with full confidence?

Code :

- 1: _____
- 2: _____
- 3: _____

3-4 On the other hand, what agricultural techniques are you still having difficulties with in instructing farmers?

Code : 1: _____
2: _____
3: _____

3-5 (Related to 3-4) What are the causes of these difficulties? (multiple answers)

Code:

1. I still have some ambiguous technical points, and therefore, cannot make sure myself to instruct farmers with full confidence.
2. Only supply of equipment and materials are the points to feel difficulties (technical aspect has no problem).
3. Only availability of transportation mode is the point of difficulties.
4. Farmers do not understand or are not yet convinced of newly introduced techniques.
5. Other: _____

3-6 How many farmers in your coverage area do you estimate to continue applying agricultural techniques that they learned through the Training Programs?

_____ %

3-7 (To the personnel answered 3) why do you think so?

3-8 (Social-Cultural-Environmental aspect)

-END-

