



**“A STUDY ON THE AWARENESS, KNOWLEDGE,
ATTITUDES AND PRACTICES OF FARMERS
ON UPLAND AGRICULTURE”**

Conducted by the Mindanao Communicators Network, Inc.
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Introduction

The study on the awareness, knowledge, attitudes and practices of farmers on upland agriculture was conducted in upland communities of the provinces of South-Central Mindanao, particularly in Compostela Valley Province, Davao del Norte, Davao del Sur, Davao Oriental, Sarangani Province, and South Cotabato.

The upland communities are project sites of the Upland Development Programme, a five-year project jointly funded by the European Commission and the Philippine government.

The study was conducted to assess the extent of people’s awareness about upland farming; people’s knowledge and understanding about upland farming; people’s opinions about the Upland Development Programme; preference on where to get information about upland farming; and farming methods adopted by upland farmers.

A total of 502 household respondents were interviewed by employing the simple random sampling method and the selection key used in determining a qualified respondent.

The distribution of sample respondents by province is shown in Table 1 below.

Table 1

Distribution of Sample Respondents by Province

Province	No. of Sample Respondents	%
Compostela Valley	116	23.10
Davao del Norte	39	07.80
Davao del Sur	47	09.40
Davao Oriental	150	29.90
Sarangani Province	100	19.90
South Cotabato	50	10.00
Total	502	100.00

Findings of the Study

Demographic Profile

Age. The average age of respondents was 38.75. the youngest was 16 years old and the oldest was 77 years.

Sex. Majority or 61 percent of the respondents were male while 39 percent were female.

Civil Status. More than three-fourths or 81.30 percent of the respondents were married; less than one-fifth or 14.30 percent were single; 3.40 of the respondents were widowed; with 1.00 percent of them separated.

Table 2 presents the distribution of respondents by their civil status.

Table 2

Distribution of Respondents by their Civil Status

Civil Status	No. of Respondents	%
Single	72	14.30
Married	408	81.30
Widowed	17	03.40
Separated	5	01.00
Total	502	100.00

Educational Attainment. Almost one-half or 48.00 percent of the respondents reached elementary level only while very few or .40 percent were vocational school graduate.

Slightly more than one-fifth or 21.50 percent reached high school. About 12.20 percent were able to complete elementary education; 7.80 percent high school; 6.80 percent tertiary. Some; 1.60 percent graduated from college but 1.80 percent said they never attended formal education.

Table 3 on Page 3 presents the distribution of respondents by educational attainment.

Table 3
Distribution of Respondents
by their Educational Attainment

Civil Status	No. of Respondents	%
None	9	01.80
Elementary level	241	48.00
Elementary graduate	61	12.20
High school level	108	21.50
High school graduate	39	07.80
Vocational graduate	2	00.40
College level	34	06.80
College graduate	8	01.60
Total	502	100.00

Occupation. The great majority of the respondents or 66.50 percent were into farming; while very few or 00.60 percent were working in commercial agricultural farms. Other respondents were: none/house-keeping, 23.90 percent; employed in a private firm, 3.80 percent; student, 2.00 percent; government employee, 1.20 percent; and barangay official, 1.40 percent.

Table 4 presents the distribution of respondents by their occupation.

Table 4
Distribution of Respondents
by their Occupation

Occupation	No. of Respondents	%
None/Housekeeping	120	23.90
Farming	334	66.50
Employed in commercial farm	3	00.60
Employed in private firm	19	03.80
Government employee	6	01.20
Sari-sari store vendor	3	00.60
Student	10	02.00
Barangay official	7	01.40
Total	502	100.00

Monthly Family Income. Not all of the respondents gave their monthly family income because they had no stable job with no fixed monthly earning.

However, those revealing an estimated monthly family income, gave an average monthly earning of PhP 2,850.00. The lowest income was PhP 200.00 while the highest income was PhP 35,000.00.

Awareness

Almost all or 85.30 percent of the respondents were aware of the programme while 4.70 percent were not aware of the programme. All or 100 percent of the respondents in Compostela valley Province were aware of the programme while almost one-half or 47 percent of the respondents in Sarangani Province were not aware.

Table 5 presents the distribution of respondents who were aware and not aware by area.

Table 5
Awareness of Respondents by Province

Province	Aware	%	Not Aware	%	Total
Compostela Valley	116	100.00	0	0	116
Davao del Norte	36	92.30	3	07.70	39
Davao del Sur	44	93.60	3	06.40	47
Davao Oriental	142	94.70	8	05.30	150
Sarangani	53	53.00	47	47.00	100
South Cotabato	37	74.00	13	26.00	50
Total	428	85.30	74	14.70	502

Sources of Information

Radio. Radio listenership varied among the provinces. DXHM, which is based in Mati, Davao Oriental, was widely listened to in Davao Oriental while DXDN, which is located in Tagum City, Davao del Norte, was audible in Davao del Norte and neighboring Compostela Valley Province.

On the other hand, DXRP-Radyo ng Bayan, a government-run radio station, was the radio station based in Davao City most listened to. Other radio stations that were able to capture listeners were DXDC of the Radio Mindanao Network, DXAB of the ABS-CBN, DXGO of the Manila Broadcasting Corporation, and DXRA of the RMC Broadcasting Corporation. Radyo Madayaw, an FM station in Davao Oriental is also audible in the province.

Table 6 presents the distribution of radio listeners in the different project areas of UDP.

Table 6
Distribution of Radio Listeners
in UDP Project Areas

Area	dxAB	dxDN	dxDC	dxGO	dxH M	dxRA	dxRP	FM
Compostela Valley		1	11				25	
Davao del Norte	10					1	1	
Davao del Sur			5	6			14	
Davao Oriental			5		99		4	9
Sarangani			1				5	
South Cotabato								
Total	10	1	22	6	99	1	49	9
%	02.34	00.23	05.14	01.40	23.13	00.23	11.45	02.10

The respondents did not mention any print media as their source of information.

Interpersonal Communication. More than three-fourths or 80.60 percent of those aware of the programme cited barangay officials as their source of information while very few or 00.90 percent learned about the programme from the agro-fair.

Other sources of information were: farm technicians, 56.80 percent; municipal officials, 15. percent; seminar, 06.80; neighbors, 05.80; fellow farmers, 05.10 percent; relatives, 04.70 percent; and friends, 00.70 percent.

Table 7 presents the respondents' sources of information in interpersonal communication.

Table 7
Respondents' Sources of Information
in Interpersonal Communication

Sources of Information	No. of *Respondents	%
Barangay officials	345	80.60
Farm technicians	243	56.80
Municipal officials	64	15.00
Seminar	29	06.80
Neighbors	25	05.80
Fellow farmers	22	05.10
Relatives	20	04.70
Agro-fair	4	00.80
Friends	3	00.70

*multiple answers

Level of Knowledge.

Using defined ideas to determine the level of knowledge of respondents aware of the programme, it was found out that majority or 64.00 percent of the respondents' level was very high while very few or 1.4 percent were rated low and almost one-third of the respondents' level of knowledge got high.

Table 8 presents the respondents' level of knowledge on the programme.

Table 8
Respondents' Level of Knowledge
on the Programme

Level of Knowledge	No. of Respondents	%
Very high	274	64.00
High	148	34.60
Low	6	01.40
Total	428	100.00

Attitudes Towards Upland Development Programme

Almost all or 98.6 percent of those who were aware of the programme favored the inclusion of their community as beneficiary of the Upland Development Programme while very few or 1.2 percent were not in favor.

Table 9 presents the opinions of farmers who were aware of the programme.

Table 9
Respondents' Opinions on the Programme

Opinion	No. of Respondents	%
Favor	422	98.60
Not Favor	6	01.40
Total	428	100.00

For those who were of the programme, almost one-third or 33.4 percent of them said the program would improve their livelihood while 2.9 percent said it would increase their income.

Furthermore, 30.5 percent of the respondents said the programme would improve their community; 26 percent said the Programme would educate farmers on a new method of farming; 4.1 percent said it would improve their family income; and 2.9 percent said it would increase agricultural production.

Table 10 on Page 8 presents the reasons why the respondents favored the inclusion of their community in the upland development Programme.

On the other hand, almost one-third or 33.3 percent of those who did not favor the inclusion of their community in the Upland Development Programme said it would not improve upland farming and it would not benefit upland farming while 16.7 percent said upland farming would not help increase income and there was no project of that sort was established in the area.

Table 10
Reasons why Respondents Favored the Inclusion
of their Community in the Upland
Development Programme

Reasons	No. of Respondents	%
Improved livelihood.	139	33.40
To improve our community	127	30.50
To educate farmers on new method of upland farming.	108	26.00
Increased family income.	17	04.10
Increased agricultural production.	13	03.10
Increased income from upland farming.	12	02.90
Total	416	100.00

Table 11 presents the reasons given by respondents who did not favor the inclusion of their community in the upland development programme.

Table 11
Reasons why Respondents did not Favor the Inclusion
of their Community in the Upland
Development Programme

Reasons	No. of Respondents	%
It would not improve upland farming	2	33.30
Not beneficial to farming.	2	33.30
It would not help increase income from farming.	1	16.70
No project was established in the area.	1	16.70
Total	6	100.00

Practices on Upland Farming

More than three-fourths or 76.60 percent of the farmers were able to and have been adopting land contour farming while very few or 00.70 percent of the farmers were using the Korean natural farming.

Almost two-fifths or 39.20 percent of the farmers applied the diversified farming system while 00.90 percent availed of the community savings program.

Other farm practices that were learned and being adopted by the respondents were: organic farming, 31.80 percent; water and soil conservation, 7.70 percent; proper pruning of fruit trees, 4.70 percent; integrated livelihood and farming, 3.50 percent; vegetative strips, 3.30 percent; and 2.80 percent, integrated pest management.

Table 12 presents the farm technologies that were learned and adopted by families of respondents in their farm.

Table 12
Farm Technologies Learned and Adopted
By Respondents' Families

*Farm Technologies	No. of Respondents	%
Land contour farming	328	76.60
Diversified farm system	168	39.20
Organic farming	136	31.80
Water and soil conservation	33	07.70
Proper pruning of fruit trees	20	04.70
Integrated livelihood and farming	15	03.50
Vegetative strips	14	03.30
Integrated pest management	12	02.80
Community savings	4	00.90
Korean natural farming	3	00.70

***multiple answers**

Reasons for Adopting the Programme

More than one-half or 52.20 percent of the respondents said they were adopting the technology that their individual families learned from their forefathers because it would prevent erosion and restore soil fertility while very few or 1.70 percent said it would improve family living conditions. Slightly more than one-fourth or 26.80 percent said it would increase their farm income and 10 percent said that the use of technology was less expensive.

Other reasons given by the respondents were: it would improve upland farming practices, 17.30 percent; it would increase farm production, 16.30 percent; and it would be beneficial to upland farmers, 10.50 percent;

Table 13 presents the reasons given by respondents why their family adopted the farm technological practices had learned from the programme.

Table 13
Reasons why Families of Respondents
Adopted the Technologies

*Reasons	No. of Respondents	%
Prevent erosion and restore soil fertility	214	52.20
Increased farm income	110	26.80
Improved upland farming practices	71	17.30
Increased farm production	67	16.30
Beneficial to upland farmers	43	10.50
Less expensive	41	10.00
Improved family living condition	7	1.70

***multiple answers**

On the other hand, 44.40 percent of those who did not adopt the use of technology learned by their respective families had learned said they had no working knowledge while 5.60 percent said it was difficult to adopt. More than one-fifth or 22.20 percent said there were no available materials while 11.10 percent said it was more expensive. Less than one-fifth or 16.70 percent said there was lack of time to adopt the technology.

Table 14 on Page 11 presents the reasons why the families of respondents did not adopt the technologies they had learned from the programme.

Table 14

Reasons why Families of Respondents
Did Not Adopt the Technologies

Reasons	No. of Respondents	%
No working knowledge	8	44.40
No available materials	4	22.20
Lack of time	3	16.70
More expensive	2	11.10
Difficult to adopt	1	05.60
Total	18	100.00

Information Needs

Almost two-fifths or 39.20 percent of the respondents who were not aware of the programme said they wanted information about land contour farming while very few or 1.40 percent wanted to know about integrated pest management. More than one-third or 36.50 would like to know about new upland farming techniques while 5.40 percent wanted to know livelihood projects.

Other information wanted to know by the respondents from the programme on were: diversified upland farming, 21.60 percent; organic farming, 8.10 percent. On the other hand, 8.10 percent were not interested to know about farming technology.

Table 15 presents the information that the respondents want to know from the programme.

Table 15

Information that Respondents Want
to Learn from the Programme

Information Needs	No. of *Respondents	%
Land contour farming	29	39.20
New farming techniques	27	36.50
Diversified upland farming	16	21.60
Organic farming	6	08.10
Livelihood projects	4	05.40
Integrated pest management	1	01.40
Not interested	6	08.10

*multiple answers

Sources of Information

Media. Majority or 58.10 percent of the respondents preferred to use the radio while 1.40 percent chose newspapers and brochures as their sources of information.

Other media channels that the respondents selected were: television, 5.40 percent; flyers, 4.00 percent; and magazines, 2.70 percent.

Table 16 presents the preferred sources of information by the respondents.

Table 16
Respondents' Media Preference

Media Preference	No. of *Respondents	%
Radio	43	58.10
Television	4	05.40
Flyers	3	04.00
Magazines	2	02.70
Newspapers	1	01.40
Brochures	1	01.40

***multiple answers**

Interpersonal Communication. As to the use of interpersonal communication channels as source of information on farming technologies, one-fifth or 21.60 percent of the respondents chose barangay officials while 1.40 percent identified relatives, seminar, and agro-fair.

Other sources of information that the respondents preferred to get lessons from were farming technology: farm technicians, 18.90 percent; municipal officials, 4 percent; friends, 4 percent; and fellow farmers, 2.70 percent.

Table 17 on Page 13 presents the preference of respondents among the persons as their sources of information on the programme.

Table 17

Persons Preferred by Respondents
as their Sources of Information on the Programme

Persons as Sources of Information	No. of *Respondents	%
Barangay officials	16	21.60
Farm technicians	14	18.90
Municipal officials	3	04.00
Friends	3	04.00
Fellow farmers	2	02.70
Neighbors	1	01.40
Relatives	1	01.40
Agro fair	1	01.40
Seminar	1	01.40

*multiple answers

Farming Practices

Almost two-fifths or 39.20 percent of the respondents who were not aware of the programme, said that they adopting mono cropping in farming while 1.40 percent said they were using integrated pest management on their farm.

Other farm practices that that respondents had used were: diversified farming, 27 percent; land contour farming, 17.60 percent; slash and burn, 9.50 percent; and fertilizer application.

Less than one-fifth or 16.20 percent of the respondents said their family did not use any farm technique.

Table 18 on Page 14 presents the farming practices being adopted by respondents who are not aware of the programme.

Table 18

Farming Practices being Adopted by Families
of Respondents who are not Aware
of the Programme

Farming Practices	No. of *Respondents	%
Mono cropping	29	39.20
Diversified farming	20	27.02
Land contour farming	13	17.60
Slash and burn	7	09.50
Fertilizer application	7	09.50
Integrated pest management	1	01.40
None	12	16.20

*multiple answers

Conclusions

The following conclusions have been derived from the findings of the study.

1. Almost all of the respondents whose community was a beneficiary of the Upland Development Programme were aware of the Programme;
2. All of the respondents in Compostela Valley Province are aware of the programme while 47 percent of the respondents in Sarangani Province are not aware.
3. Radio was the main source of information about the programme as far as the media were concerned while barangay officials were the respondents' primary source of information from among the individuals in their community.
4. Respondents' level of knowledge about the programme was very high;
5. The respondents strongly favored the inclusion of their community in the Programme;

6. Respondents favored the inclusion of their community in the programme to improve livelihood and their community as well as to educate farmers on the use of new methods on upland farming;
7. Respondents did not favor the inclusion of their community in the Programme as it would not improve upland farming and nor beneficial to farming.
8. Land contour farming, diversified farm system, and organic farming were among the farming technological practices that the respondents learned from the programme;
9. Those adopting the new farming methods using technology to prevent erosion and to restore soil fertility, to increase farm income and to improve upland farming practices;
10. Those not adopting the technology learned from the programme had no working knowledge, no available reading materials, and had no time.
11. Respondents wanted to learn from the Programme are land contour farming, new farming techniques, and diversified upland farming;
12. The respondents preferred to get information about the Programme through the radio, barangay officials, and farm technicians.
13. Mono cropping, diversified farming, and land contour farming were among the farming practices being used by farmers who were not aware of the programme.

Recommendations

Therefore, the following courses of actions are being recommended:

1. Conduct/Continue with the information, education, and communication activities in order to sustain the advocacy campaign on the Programme;

2. Communication activities should be done at the Programme level and community-based level to generate widespread dissemination;
3. Review the communication plan prepared by provincial information officers using the results of the study as inputs for designing strategies of the communication advocacy; and
4. Draft a comprehensive communication plan for the overall programme aside from the community-based communication plan prepared by the local government units..