



Communication for Sustained Livelihoods and Food Security

COMMUNITY INFORMATION NEEDS ASSESSMENT



ASSESSMENT REPORT

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The report was prepared by DantDaLun Management and Consulting Services Company Ltd., with participation from regional and national local partners and stakeholders including, State and local government entities, NGOs, rural communities, community-based associations, institutions and project beneficiaries.

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LIST OF ACRONYMS

apps	applications
CBO	Community based organisation
DOA	Department of Agriculture
GAD	General Administration Department
ICT	Information and communications technology
IP	Implementing partner
IRC	International Refugee Committee
LIFT	Livelihoods and Food Security Trust Fund
MADB	Myanmar Agricultural Development Bank
NGO	Non-governmental organisation
TV	Television

EXECUTIVE SUMMARY

As part of UNESCO's *Communication for Sustainable Livelihood and Food Security* project funded by LIFT, a rapid information needs assessment was conducted to 1) ascertain the perceived and felt agriculture and livelihoods information needs in rural areas and 2) map existing information sources, in order to 3) identify information gaps and preferred channels for dissemination of such information.

The study was conducted in five states/regions -- in Chin State, Rakhine State, Shan State, Mandalay Region and Ayeyawady Region. Forty five villages were purposively selected in fourteen townships in these states/regions. The study used both qualitative and quantitative methods for data collection. A non-representative household survey was conducted with 720 respondents (362 men and 358 women) who are heads of households or spouses of heads of households. In addition, 2 focus group discussions (one with men and one with women) and one key informant interview were conducted in each village. At the township and national (Yangon) level, 97 key informant interviews were held with representatives from agricultural related organisations and media outlets from the public, private and non-profit sectors.

About half of the respondents in the household survey are farmers and a quarter work as casual labourers. About 20% of the respondents also rear livestock in addition to farming, with the highest presence of livestock breeders in Mandalay region. In the Delta and Rakhine state, about 15% of the respondents are fisher folk. A small percentage of respondents are business owners, crafts persons and skilled wage earners.

The respondents are of different ethnic groups including Shan, PaO, Palaung, Chin, Rakhine and Bamar. About 65% of the respondents can read and write Myanmar and 27% are unable to read or write Myanmar.

In Shan state, about 90% of the respondents said they own land but this falls to about 50% in Chin and Rakhine states. Average land size owned is 6 acres; it is highest in Ayeyawady at 11 acres and lowest in Chin at only 2 acres. Most farmers planted cereal crops, roots or tubers as the main crop during the monsoon season, of which about half planted rice. Most farmers sell their crops individually and about 90% are able to obtain crop prices before selling, primarily from traders or friends and family. Most of the land cultivated is rain-fed throughout the study area and irrigation is available to only a very small proportion of households.

A key finding is that there are high information needs in all areas. Almost all respondents indicated that they need information in all the information categories identified in the study. The data shows very little significant differences in the answers given by respondents in different information categories even when the data is disaggregated by different respondent characteristics. However, while needs in all information areas are high, the analysis has sought to understand the differences in priority given to different areas, i.e. to identify areas where information needs are very high from those which are less high.

The categories for which information needs are highest are in nutrition and in weather and environment. This is similar across all states and regions. The categories which scored the lowest are in production assets and input markets. This is likely because a significant proportion of the respondents are casual labourers or subsistence farmers who do not use many production assets and purchase many inputs. Other key categories of information needed are credit and finance as well as commodity markets.

Overall, the means of communication that people have most access to is radio (about half of respondents) followed by mobile phone with 35% coverage. Less than 5% of the respondents have access to internet as although many have access to a mobile phone they may not have smartphones with internet capabilities. Only about a quarter of respondents have access to a television (TV) and about 10% to journals. Language, poor transportation in rural areas, lack of electricity and limited coverage (e.g. TV or mobile phone coverage) are the key barriers to improved access to communications.

The channel through which most people get information on livelihoods is friends and relatives. Exchange of information often happens during market days, religious ceremonies and ethnic national festivals where people meet and share information. Radio, TV and newspapers are also important sources of information on

livelihoods, although as noted above, access to TV and newspapers is very low in the rural areas. Very few people are currently getting information by SMS. Most respondents do not know how to use SMS or internet on their mobile phone, even when it is available. In some areas, e.g. in PaO, the respondents mentioned that they do not understand Myanmar and thus would not be able to use SMS. However, most people are very interested in getting more information through SMS and internet and think that it will become an important information source in the future, particularly for the younger generation.

While most people get livelihoods information from friends and relatives, it is considered a less reliable source of information. Almost all respondents find the information from all sources easy to understand although language is sometimes a barrier (e.g. use of English words, lack of words in the local language). Information from farmers' associations/cooperatives and extension workers are the most easy to understand, reliable and practical. The Unmet Need Index, which compares current versus preferred use of a particular means of communication, is highest for mobile phones/internet. There is also a desire for government extension workers and NGOs to provide more information than they currently do. Conversely, there is a desire to be less dependent on friends and family as well as traders and middlemen.

In general, men have better access to all means of communications compared to women. There is little difference, however, in how men and women get information on livelihoods. Women in some areas noted that they are not able to attend trainings offered by NGOs because they do not have time as they have to work in the fields as well as take care of children and the housework. Some women listed "husbands" as a source of information.

Access to all means of communications also increases with level of education. However, among those who do have access, there is no clear difference in whether they use it to get information on livelihoods among respondents of different education levels. This implies that education levels may be less important a factor in use of communication channels than other factors related to education such as income (where people with less schooling earn less and thus are less able to afford to buy different communications equipment).

Information on livelihoods is currently available from a variety of channels including government entities (Ministry of Information, Ministry of Agriculture and Irrigation, Ministry of Livestock, Fisheries and Rural Development, Myanmar Agricultural Development Bank, village leaders), private sector agro-chemical companies and traders/middlemen, private media outlets (radio, TV and print), as well as non-governmental organisations providing agricultural extension and micro-credit services. Most government entities have limited coverage due to lack of adequate resources. Private sector agro-chemical companies tend to target high output areas and are less present in subsistence farming areas.

While many people listen to radio for weather information and input prices, there is not much interest in receiving other livelihoods related information from the radio. Television is not reaching the rural populations due to the lack of equipment and poor transmission. These formats thus have limited use in reaching the people in the target areas with the information they are interested in.

As literacy is not high in many of the targeted areas, written materials are of low interest to most farmers. Newspapers and journals do not reach the rural areas but may serve the purpose of township level groups such as traders and extension workers who may in turn provide such information to the farmers. These materials are thus useful for the "middle level information providers".

Access to SMS and internet is still very limited and thus is not currently a practical means to reach most people in the rural area. In many other countries, the use of new information and communications technology (ICT) such as applications on mobile telephones has been shown to improve agricultural productivity. A number of organisations are in the process of developing such applications in Myanmar. The Farmer app, which is being developed by the Awba company with technical support from Mercy Corps, has been piloted and will be launched nationally in mid-November. Information from the website about the app indicates that the app will provide technical information on farming practices as well as weather and commodity price updates. In many

areas in Myanmar, however, the context is not yet conducive for using these types of information channels on a large scale. Only very few households have access to smartphones which are needed to use apps and internet coverage is still limited. As many households have access to simple keypad mobile phones and the rate of expansion of the mobile network is high and will remain high for the coming years, there is a potential to expand the use of SMS as a vehicle for transmission of information. The use of mobile SMS information platforms where farmers receive SMS alert messages and mobile farmer helplines where farmers can call agricultural experts for advice have been shown in other countries to increase access to real-time information and support. To make them viable, the costs of such services must be considered.

Low levels of literacy however limit the use of SMS and some form of support on how to use SMS is needed. Younger family members can play an important role in this. Furthermore, “middle level information providers” as described above could be nodes for further dissemination of the information sent by SMS. Awareness of SMS use could also be raised through radio and TV.

The use of internet will increase in the longer future and the use of applications will increase. Application development and testing and piloting should be done at this moment but introduction on a larger scale needs to wait until the environment is more conducive.

Due to the heavy reliance of people on the informal network of friends and family, the idea of using “nodes” to “infiltrate” the informal network and act as “information distributors” may be explored. The system of “information distributors” is already functioning in some villages where village leaders disseminate information received from the township level through these information distributors. These “information distributors” could be from existing trusted sources such as NGOs and government extension workers, local journalists or reporters as well as key influencers in the community such as religious leaders.

Mobile phone access is higher and could be an important means for two way communication and information on demand. While this has not yet been developed in Myanmar, helplines and call centers have been introduced in other countries with relative success. The call centers could be located within the Ministry of Information, Ministry of Agriculture and Irrigation or within NGOs and should be operated by people who can speak the local languages.

Although farmers’ associations and cooperatives were not identified as a preferred channel by many respondents, the data shows that respondents consider information from farmers’ associations and cooperatives to be highly reliable, practical and easy to understand. About 60% of respondents say that there is a farmer association or cooperative in their village and these organisations may be used as a means to share knowledge among rural populations themselves based on their own experiences. Many such organisations hold regular meetings and these are good forums to share information.

The following recommendations are based on an analysis of the key information gaps and preferred channels of communication and seek to provide suggestions for initiatives that may be developed by UNESCO in its project.

1. Information on **rainfall and other weather conditions** are of high priority for rural populations due to the key effect of weather on their livelihoods. Basic daily weather forecasts are currently available from radio and television, with radio being the main source of such information for rural populations. In the ethnic states, such as Rakhine and Chin states, however, access to radio is low because of the language barrier. Other options to provide such information such as development of **local radio channels** in local languages or **SMS service through “information distributors”** could be developed. The recent Broadcast Law that has been passed allows the development of local community radio stations and these could be supported to promote broader information exchange in local areas.
2. Information on **nutrition** is also a key gap with very few organisations providing such information as nutrition is often overlooked in interventions related to livelihoods and food security. This information may be provided by **NGO extension services as well as government services**. Further research should be

carried out to understand information needs in this area. UNESCO may seek collaboration with other actors such as the Ministry of Health, UNICEF, World Food Programme, FAO and other nutrition initiatives (e.g. Scaling-Up Nutrition initiative) and with specific LIFT implementing partners to develop communication initiatives linked to specific nutritional objectives of the partners' projects.

3. While information on daily weather conditions is available from radio, TV or newspapers, there is little information on **how the weather conditions affect production and how to mitigate against different weather conditions**, which are also important for farmers. Information on how to respond to weather conditions could be developed for distribution through **extension services provided by NGOs and government departments as well as the "information distributors"**. For example, information packages for how to manage drought could be developed if such conditions are predicted for the season.
4. Information on where to get **credit and interest rates and costs of credit** also ranked highly with few information sources providing such information widely. Most villagers currently receive information on loans from their **village leaders and NGOs which offer micro-credit services** and these should continue to be key sources of information. However, caution should be taken not to promote high levels of borrowing and indebtedness as many farmers already have high levels of debt. Information should thus also be provided on how to **manage debt**.
5. Farmers need to have information about the relevant laws particularly the **land law and fertilizer and pesticide law**. In particular knowledge about how to secure the Land Use Certificate Form -7 is crucial for them in order to be able to secure their use of the land they cultivate and to obtain a loan from the MADB. Although village leaders provide this information, this is very limited. There is a strong interest to receive such information from government extension workers but this needs to be done in a user friendly supportive manner. In addition to provision of information through extension workers and radio, it may be useful to provide such support through a **helpline or call center** where advice can be provided to the individual on his/her own circumstances.
6. Information on prices of inputs and commodities did not rank among the top 20 types of information needed. Such information is currently available from a variety of sources including radio, TV and newspaper and journals, as well as from traders and middlemen. However, information on the **quality of inputs and techniques to apply inputs** did rank among the top 20 types of information needed. Some information on this is currently available from traders but there is an interest to get such information from **NGOs and government extension workers**.
7. There is a strong interest for information on **new farming methods, new seeds and new fertilizers/pesticides** from **NGOs and government extension workers**. Most farmers however, are risk averse, and will not use new methods and inputs until they have been demonstrated to have an impact. It is thus important to create opportunities for farmers to share such information among themselves in order to promote such methods. This can be done through discussion forums and events organised by **farmers' associations and cooperatives**.
8. There is currently very little information being provided on the **cost of casual labour**. This information is useful to both farmers who hire casual labour as well as the casual labourers themselves. As there is not an established "market" for casual labour and the cost varies significantly between areas, such information is best provided by local sources such as **farmers' associations and cooperatives**.
9. The analysis of the top 20 types of information required does not include information related to **fishing and livestock breeding** as fisher folk and livestock breeders form a smaller percentage of the respondents. However, in areas where fishing and livestock breeding are important sources of livelihood -- Ayeyawady and Rakhine for fishing and Mandalay for livestock breeding -- it is important to also provide information on techniques related to these activities. Such information is best provided through **NGOs and government extension workers** as well as **farmers' associations and cooperatives**.

I. INTRODUCTION

UNESCO together with its partners -- the Ministry of Information, Ministry of Agriculture and Irrigation, the Ministry of Livestock, Fisheries and Rural Development, Ooredoo Myanmar and BBC Media Action -- are implementing a *Communication for Sustainable Livelihood and Food Security* project which aims to facilitate access to agriculture and livelihoods related information by rural populations to enable them to make informed choices and decisions needed to improve their quality of life and reduce poverty. The project, which is supported by the Livelihoods and Food Security Trust Fund (LIFT), seeks to address imbalances in the availability and accessibility of adequate, accurate and timely information in rural areas for agricultural and livelihoods purposes.

As part of the first phase of this project, UNESCO in collaboration with DantDaLun Management and Consulting Services, conducted a rapid information needs assessment to ascertain the perceived and felt information needs of the community and map existing information sources in order to identify information gaps and preferred channels for dissemination of such information. This document presents the findings of this study.

II. STUDY OBJECTIVES AND DESIGN

A. STUDY OBJECTIVES

The specific objectives of the study were to:

1. Identify the agricultural and livelihood **information needs**, uses and preferences of groups in the rural sector using qualitative and quantitative methods; and
2. **Map existing** agricultural and livelihood related information in various forms and channels that are accessible to the community.
3. Identify the **information gaps** for rural communities and **preferred channels/formats** for dissemination of this information as the basis for further elaboration of the UNESCO project.

B. STUDY AREAS

The study was conducted in five states/regions -- in Chin State, Rakhine State, Shan State, Mandalay Region and Ayeyawady Region -- corresponding to LIFT's geographic areas of focus. Within each state/region, the study selected three townships where LIFT already operates through its partnership with implementing partners (IPs) in order to build on existing activities. In addition to township level data, the study also collected national level information from media outlets and information service providers in Yangon. Figure 1 shows a map of the study areas.

Fifteen townships were initially selected by DantDaLun using the criteria specified by UNESCO "to include those with the highest poverty incidence recorded and where LIFT already operates." Selection was based on poverty data from the Myanmar Rural Development Strategic Framework (Ministry of Livestock, Fisheries and Rural Development, 2014) and on LIFT information on their coverage townships. The list was confirmed by UNESCO and was subsequently revised with inputs from LIFT to reflect their priority townships. Within each township, three villages were purposively selected with assistance of LIFT implementing partners, based on available time and resources and ability to obtain approval for the fieldwork. Efforts were made to include a range of villages including those that have less access to road and communication infrastructure.

Figure 1: Map of study areas



Table 1 provides the list of townships and villages where the study was conducted. A profile of the population in each of the study townships is shown in Table 2.

Table 1: List of study townships and villages

District	Townships	Villages	Organisation providing support
Rakhine			
Mrauk-U	Minbya	Kyein Chaung	International Rescue Committee
		A-Haung Taung	
		Min Htauk	
Kyaukpyu	Kyaukpyu	Kyan Chai	Better Life Organisation
		Kon Baung	
		Pyaing Sae Kay	
Mrauk-U	Myebon	Kyauk Nga Nwar	International Rescue Committee
		Kyar Inn Taung	
		Gyant Hin Gar	
Ayeyawady			
Labutta	Labutta	Pike Tan	PACT
		Kyaukpyu	
		Pain Hnel	
Pyapon	Bogale	Tha Buu	PACT
		Pha Yar Thone Su	
		Kyee Chaung	
Labutta	Mawlamyinegyun	Sin Yoke	PACT
		Padel Kaw	
		La Mu Ta Pin	
Mandalay			
Meikthila	Mahlaing	Ku Gyi	Help Age International
		Kyinn Ywar	
		Yay Nyi	
Myingyan	Natogyi	Ma Gyi Kone	Ministry of Information
		Tha Htay Kone	
		Yoma	
Myingyan	Taungtha	Myay Phyu Kone	Ministry of Information
		Pa Khat	
		West Ma Gyi Pyin	
Shan			
Taunggyi	Hopong	Naung Khone	Metta Foundation
		San Soke	
		War Kha Yar	
Taunggyi	Hsihseng	Naung Lone	Metta Foundation
		Taung Ti	
		Hti Mun	
Kyaukme	Kyaukme	Naung Peng	PACT
		Aung Myay Thar Yar	
		Lawl Khaw	
Chin			
Falam	Falam	L Hmum Pi	GRET
		Thlanrawn	
		Sum Hrang	
Falam	Tedim	Kaptel	Arr Yone Oo
		Lailui	
		Lamzang	
Falam	Tedim	Lumnual	Arr Yone Oo
		Tualzang	
		Tuilang	

Table 2: Profile of survey townships

Township	Village tracts ¹	Villages ¹	Total Population ²	Male ²	Female ²	Urban ²	Rural ²	Total Households ²	Female headed households ²	% Female headed households ²	Poverty Score % ³
Rakhine											
Minbya	63	272	169,208	78,875	90,333	22,944	146,264	36,628	8,302	22.7	40
Kyaukpyu	54	262	165,352	78,762	86,590	20,866	144,486	37,264	7,956	21.4	
Myebon	52	158	137,193	65,359	71,834	11,566	125,627	31,339	5,238	16.7	40
Ayeyawady											
Labutta	50	486	229,929	114,746	115,183	31,174	198,755	55,146	8,206	14.9	
Bogale	71	570	322,665	159,296	163,369	43,224	279,441	75,987	13,811	18.2	
Mawlamyinegyun	101	583	311,340	153,127	158,213	32,915	278,425	74,886	15,614	20.9	
Mandalay											
Mahlaing	53	247	139,427	63,581	75,846	13,850	125,577	33,327	9,802	29.4	45
Natogyi	65	190	177,078	80,848	96,230	12,818	164,260	40,965	9,944	27.1	41
Taungtha	78	247	216,642	97,161	119,481	17,528	199,114	49,852	13,485	24.3	41
Shan											
Hopong	23	346	112,348	55,535	56,813	22,840	89,508	24,728	5,128	20.7	25
Hsihseng	14	338	153,032	74,736	78,296	12,073	140,959	32,771	6,276	19.2	25
Kyaukme	85	363	127,560	61,644	65,916	39,930	87,630	28,371	8,124	28.6	
Chin											
Falam	87	187	41,457	20,350	21,107	9,092	32,365	8,428	2,381	28.3	79
Tedim	56	131	87,632	41,927	45,696	13,452	74,171	14,683	3,943	26.9	79
Tonzang	32	103	20,722	10,107	10,615	3,777	16,945	3,411	632	18.5	79

¹ (Ministry of Health, 2009)² (Department of Population, Ministry of Immigration and Population, May 2015)³ (Ministry of Livestock, Fisheries and Rual Development, 2014)

An initial workshop was conducted with a number of LIFT implementing partners (IPs) at the start of the study in order to gather input on the study framework and select the villages for the study. Some IPs were not able to attend the workshop and the study team met with them individually in Yangon to get their inputs.

During the fieldwork, western Myanmar was hit by a major tropical depression causing severe flooding throughout Rakhine, Chin, Sagaing and Ayeyawady states/regions. The team in Chin state was not able to undertake field work in Tonzang township, one of the initially selected study townships, due to the heavy rains which caused severe landslides in the area closing off many roads. The storm caused some of the worst floods in decades in the country resulting in huge damage and disruption. As the general livelihood situation in Tonzang township is similar to Tedim township, an additional 3 villages were selected in Tedim in substitution of the Tonzang villages.

C. STUDY QUESTIONS

The study sought to answer the following key questions:

- What types of agriculture and related rural livelihood information do rural households in the study areas need, and whether they are receiving this information?
- How are these households currently receiving such information?
- How useful is the information they receive?
- What are the obstacles to accessing current information sources?
- What kind of information is available within communities and how they share this among themselves?
- How do they apply the information received?
- How would they like to receive information in the future?

In light of the UNESCO project interest in new information communication technologies (ICT), such as mobile phone and internet applications, the study also sought to answer the following question.

- What are the rural households' access and attitudes towards use of new information communication technologies?

D. STUDY FRAMEWORK

The study sought to collect information with regards to two key main areas – the agriculture and livelihood information needs of the rural respondents and the communication means they use.

AGRICULTURE AND LIVELIHOODS INFORMATION NEEDS

The study explored the respondents' information needs related to the following information categories¹:

1. Production assets
2. Commodity markets
3. Casual labour markets
4. Technology and innovations
5. Training and extension
6. Nutrition
7. Inputs (fertilizer, pesticide, seeds)
8. Credit and finances
9. Policies and laws
10. Weather and environment

¹ These information categories are described in Annex 3.

Table 3: Information categories and types of information

Information category	Types of information
Production assets	The purchase or sales price of production assets, such as land or a power tiller
	How to use, repair or maintain (a tractor, or land etc.)
	Bargains or rental and leasing opportunities and costs.
	Related costs such as fuel costs, electricity costs, equipment and add-ons
Commodity markets	Farm and market sales price of commodities or crops.
	Transportation costs related to transporting commodities or crops to markets.
	Price of a commodity in relations to a difference in quality.
	Sale of commodities via bulk or collective selling.
Casual labour markets	Cost of casual labour
	Where to find casual labour
	Capacity of casual labour
	Time availability of casual labour
	Work conditions
Technology and innovation	New types of seeds and planting (cuttings) material
	New types of fertilizer and pesticides
	New types of machinery like ploughs, tractors, fishing boats, nets
	New planting techniques and new methods of farming or fishing
Training and extension	Where to find training or extension
	Costs of training and extension
	Who provides training and extension services
	What types of training are being offered
	When training and extension services are being offered
Nutrition	Healthy foods
	Nutritious benefits of different types of food
	A balanced and diversified diet
	Prices of nutritious food
	How to prepare nutritious food
Input markets	Price of inputs coming from different suppliers (shops)
	Price of inputs in different places (villages or towns)
	Quality of the inputs
	When these inputs are available
	Transportation cost for inputs
	Techniques used to apply inputs
Credit and finances	Where to get credit and financing
	Terms and conditions linked to applying for credit and financing
	Interest rates and other costs
	Debt repayment
Laws and policies	Policies and laws that relate to seeds
	Policies and laws that relate to fertilizer and pesticides
	Policies and laws that relate to land
	Policies and laws that relate to associations and other organizations
	Policies and laws that relate to fishing rights
	Policies and laws that relate to forests and vacant lands
Weather and environment	Rainfall prediction (when is it going to rain and how much)
	Temperature, sunshine and other weather conditions
	Effect of weather on crop production
	How to mitigate weather changes
	Soil degradation and soil conservation

Within each information category, the study sought to understand how important different types of information related to that category are to the study participants, where they currently get information from and what their preferred sources of information are. For example, within the category of production assets, the respondents were asked to discuss information needs related to the purchase/sale price of production

assets; information on how to use/maintain/repair production assets; bargains/rental/leasing opportunities; related costs such as fuel, electricity, add-ons; and suppliers/retailers/brokers/traders of second hand assets. Table 3 shows the types of information explored within each information category. These categories and types of information were identified based on a literature review² and input from the agricultural expert.

MEANS OF COMMUNICATION

The study explored respondents' use of the following means of communication/channels to receive information:

1. Radio
2. Television
3. Newspapers and journals
4. Mobile phone/SMS
5. Internet
6. Farmers' associations and cooperatives
7. Extension services
8. Traders, middlemen and shopkeepers
9. Friends and family

For each channel of communication, the study sought to understand the access that respondents have, what barriers they have, what information they receive from the channel and how useful that information is.

E. STUDY METHODS

The study used both qualitative and quantitative methods for data collection. These included:

- a review of existing documents and resources including studies on media channels and previous information needs assessments;
- a household survey;
- focus group discussions (FGD) with community members in the villages; and
- key informant interviews (KII) with key stakeholders from public sector service and private sector service providers at the Yangon and township level and village leaders at the village level.

The list of documents reviewed is provided in the bibliography.

Three data collection tools were developed: 1) a household survey questionnaire; 2) a semi-structured focus group discussion guide; and 3) a key informant interview guide. The household survey questionnaire was fieldtested and revisions made prior to the start of fieldwork. The final version of the English language tools is attached in Annex 1.

HOUSEHOLD SURVEY

As the study is an initial situational assessment intended to provide a picture of the information needs of communities, the household survey was not designed to be representative nationally or regionally of the population but is more illustrative in nature. In each village, 16 households were selected randomly for interviews based on the household list provided by the village leader, giving a total of 720 respondents (362 men and 358 women) in the household survey. Where a village household list was not available, systematic random sampling using the right hand rule was used. Within each household, the head of the household or spouse of the head of household was interviewed. The study sample, although not representative, nevertheless provides a rich understanding of the information needs of the respective communities.

² Key sources reviewed are listed in the bibliography at the end of the document.

FOCUS GROUP DISCUSSIONS

Two focus group discussions were conducted in each village, one with women and one with men. Each focus group discussion consisted of 6-10 participants. Participants for the FGDs included those with and without access to communications equipment such as radio and mobile phones.

KEY INFORMANT INTERVIEWS

In each village, a key informant interview was conducted with the village leader. At the township level, a total of 82 key informant interviews were conducted with representatives from agricultural related organisations -- government departments (Ministry of Agriculture and Irrigation, Ministry of Livestock, Fisheries and Rural Development, General Administration Department), private sector entities (agro-chemical companies, traders, brokers, shopkeepers and middlemen) and not-for-profit organisations (non-governmental organisations (NGOs) and community based organisations (CBOs)) -- as well as with representatives from media outlets -- local radio and television (TV) stations, newspapers and journals and the Ministry of Information. In Yangon, a total of 15 key informant interviews were conducted with representatives from agricultural related associations and media outlets. The list of organisations interviewed in Yangon and in each township is provided in Annex 2.

DATA COLLECTION AND ANALYSIS

The data was collected by three field teams consisting of a Team Leader, Data Supervisor and 2-3 enumerators. UNESCO and the Ministry of Information provided an introduction letter for the teams and villages were informed of the intended study by LIFT IPs prior to the data collection process. Enumerators who speak the language/dialect of the area were recruited locally with assistance of the IPs. The data collection tools were prepared in Myanmar language and translated into local ethnic languages by the enumerators. Training for the enumerators was provided by the Team Leaders and Data Supervisors.

The quantitative data gathered was computerized and analysed using SPSS software. Data was checked and cleaned using a number of standard checking strategies. The key informant interview and focus group discussion data were analysed using qualitative interpretive approaches.

LIMITATIONS OF THE STUDY

The study was not designed to be nationally or regionally representative of the population and is more illustrative in nature. This is based on the requirements of UNESCO for a rapid assessment that provides a picture of the situation of information needs in the study areas. The findings of the assessments will thus need to be further reviewed and confirmed during the roll-out of the UNESCO project.

Different enumerator teams were used in different study sites and the questionnaire had to be translated into different languages in different areas. While careful training and supervision was provided by the Team Leaders and Data Supervisors, this may contribute to possible differences in the way data was collected and recorded.

The study took place during one of the worst floods in Myanmar in decades. Many areas particularly in Chin and Rakhine states were severely affected. The study team in Chin was not able to undertake field work in Tonzang, one of the selected townships and travel conditions were significantly hampered. Many of the respondents had been affected by the floods and were emotionally under stress. While they agreed to participate in the assessment, the quality of information provided may have been affected by the conditions they were facing at the time of the study. The study also coincided with the planting season limiting the availability of many farmers.

III. STUDY FINDINGS

A. GENERAL INFORMATION

This section provides a general description of the survey areas using data available from secondary sources and an analysis of the characteristics of respondents from the household survey.

GENERAL DESCRIPTION OF SURVEY AREAS

The study was conducted in 14 townships in five states and regions and supplemented with national level data from Yangon. The study areas fall under the three of the six broad agro-ecological zones in Myanmar – delta/coastal (Ayeyawady and Rakhine), dry zone (Mandalay) and hilly areas (Chin and Shan). Indicators on the overall socio-economic conditions in the five states/regions are shown in Table 4.

AYEYAWADY REGION

The townships in the Ayeyawady region are located in the delta of the Ayeyawady River, the main river that flows through Myanmar. The selected townships were severely affected by Cyclone Nargis in 2008. The population in these townships is ethnically diverse with a Bamar majority. The Ayeyawady delta is a densely populated region and a major rice producing area. Fishing is also a major income source, including cultivation of fish in fish ponds. Transportation is primarily by waterways and can be difficult in the rainy season. Thirty-two percent of the population lives under the poverty line³ and the region has one of the highest rates of rural landlessness⁴. The Ayeyawady region also has among the highest infant mortality rates (87 per 1,000 live births) and lowest life expectancy in the country (61 years).

RAKHINE STATE

The townships in Rakhine state are located in the central part of the state along the coast. Kyaukpyu township is a large island off the main coast. The villages in the study townships included both Rakhine and Chin ethnic villages. The area gets very heavy rain (more than 4000mm) and is often hit by cyclones during the rainy season. Lowland rice is the main crop, while coconut and nipa palm plantations are also important. In the townships visited, most of the villages rely on subsistence farming with little produce sold in markets. Fishing is also an important income source for many people. Despite its natural resources, Rakhine is one of the poorest states in the country with 43.5% living below the poverty line⁵. The literacy rate (84.5%) is lower than the national average. Access to improved drinking water sources (37.7%) and electricity as a source for lighting (12.8% of households) are among the lowest in the country.

MANDALAY REGION

Mandalay is located in the central dry zone of the country. The dry zone lies in the monsoon's rainfall shadow and receives annual rainfall of less than 1000mm. The area consists of flat plains with very high temperatures in the summer season. The dry zone is a major producer of beans and pulses and rice is grown in the monsoon and summer seasons where there is sufficient water. It is also an important area for livestock production. While the second largest city is located in Mandalay region, some of the townships are more remote and there is a high level of seasonal migration during the dry season. The population is primarily Bamar. The state has higher access to improved drinking water sources and electricity as a source of lighting in comparison to other states/regions in the study.

³ (Integrated Household Living Condition Assessment Project Technical Unit, 2009-2010)

⁴ (Michigan State University and Myanmar Development Research Institute, 2013)

⁵ (Integrated Household Living Condition Assessment Project Technical Unit, 2009-2010)

Table 4: Overall socio-economic conditions in the study states/regions⁶

	Ayeyawady	Rakhine	Mandalay	Shan	Chin	National
Population density (people per square km)	177	87	200	37	13	76
Literacy rate (%)	93.8	84.7	93.8	64.6	79.4	89.5
Infant mortality rate (deaths per 1,000 live births)	87	65	57	60	76	62
Life expectancy at birth (years)	61.0	66.1	68.0	67.2	63.6	66.8
Percentage of households with access to improved drinking water sources (%)	50.3	37.7	85.6	54.7	70.2	69.5
Percent of households which have electricity as the main type of energy for lighting (%)	12.0	12.8	39.4	33.4	15.4	32.4 (14.9 in rural areas)

SHAN STATE

Shan state is situated on a plateau in the eastern part of the country neighbouring Thailand and China. Two of the study townships are in the PaO Self-Administered Zone in Southern Shan and one township is in Northern Shan with a mix of Shan, Palaung, Danu and other ethnic populations. There are well-established market towns in the area and also links to export markets, particularly in China and Thailand. The main crops are upland crops, corn, oilseeds, pulses, vegetables and wheat. According to the 2014 Myanmar census, Shan has the lowest literacy rates in the country at 64.6%⁷ and is linguistically very diverse.

CHIN STATE

Chin state is in a high mountainous region on the western border with India and Bangladesh, and has a very low population density (13 people per square km). It is one of the poorest states in Myanmar with a poverty incidence of 73%⁸. Infant mortality rate is higher than the national average at 76 deaths per 1,000 live births. Most of the population is ethnically Chin and Christian. A ceasefire with the Chin National Front was signed in 2012 leading to improved security and potential development in the area. The townships in the study are in the northern part of the state in Falam district. Much of the agriculture is upland farming using shifting cultivation methods to grow a variety of upland crops and fruit trees. Transportation and communication are made difficult by the terrain and most villagers are reached only by motorbike. Due to loss of forest cover, landslides are a common occurrence, particularly in the monsoon season. There are many different dialects spoken by different Chin sub-groups in different townships and literacy, at 79.4%, is lower than the national average of 89.5%⁹.

INFORMATION FROM HOUSEHOLD SURVEY

The study was conducted in a total of 45 villages. The villages were on average 2.2 miles (ranging from 0 miles to 25 miles) from the main road and 7.6 miles (range of 0.3 miles to 30 miles) from the nearest market. Most villages have access to at least one health center within 5 miles and one school for children 5-14 years.

⁶ Source: 2014 Census (Department of Population, Ministry of Immigration and Population, 2015)

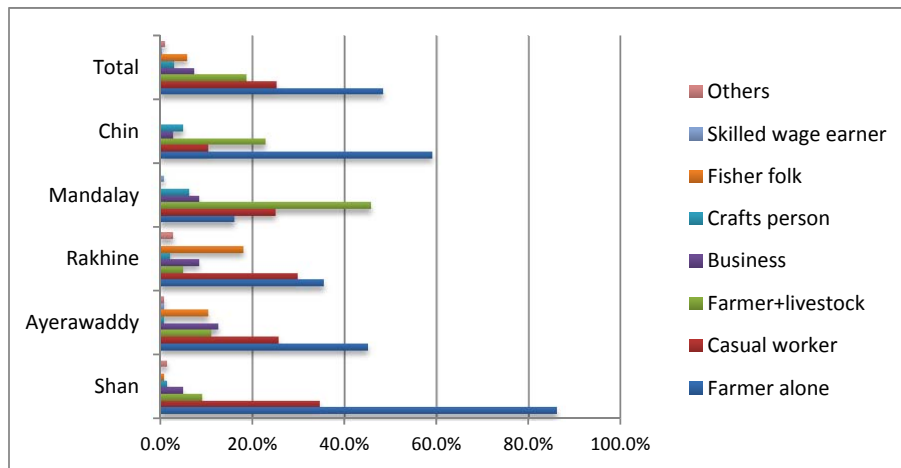
⁷ (Department of Population, Ministry of Immigration and Population, May 2015)

⁸ (Integrated Household Living Condition Assessment Project Technical Unit, 2009-2010)

⁹ (Department of Population, Ministry of Immigration and Population, 2015)

A total of 720 respondents (362 men and 358 women) participated in the household survey. The respondents were either the head of the household or the spouse of the head of household.

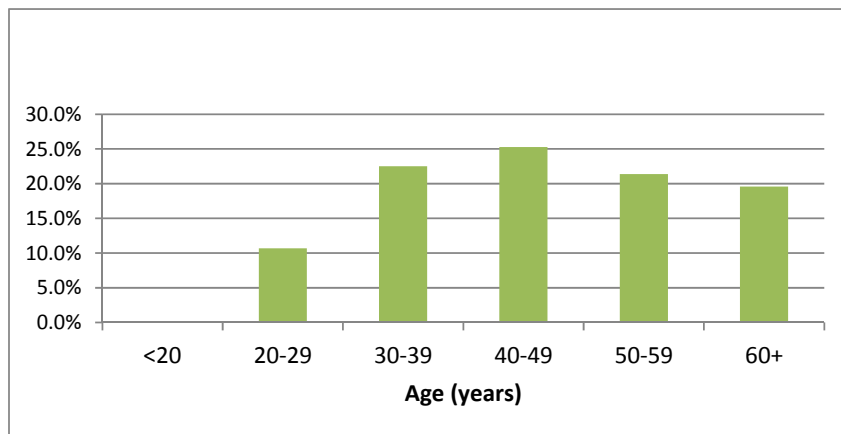
Figure 2: Occupation of respondents



The majority, about half, of the respondents are farmers and a quarter are casual labourers. Chin State had the lowest presence of casual labourers. Overall, about 20% of the respondents also rear livestock in addition to farming, with the highest presence of livestock breeders in Mandalay region. In the Delta and Rakhine state, about 15% of the respondents are fisher folk. A small percentage of respondents are business owners, crafts persons and skilled wage earners. Figure 2 shows the distribution of occupations of the respondents in the different states and regions¹⁰.

The average age of the respondents is 46.5 years with the youngest aged 19 years and the oldest at 88 years. Figure 3 shows the age distribution of the respondents. The majority of the respondents are married (84%) while about 10% are widows. The average household size is 4.8 with an equal male to female ratio.

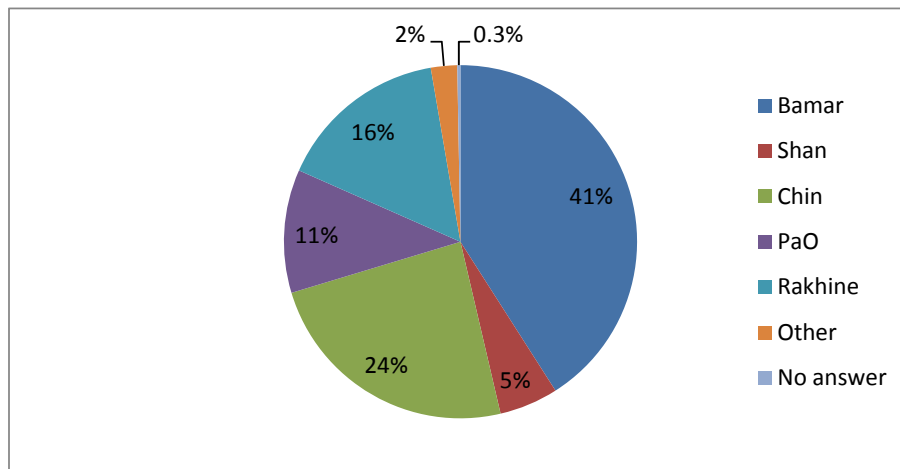
Figure 3: Age distribution of respondents



The ethnicities of the respondents correspond to the areas where the study was undertaken. The majority of respondents are Bamar (41%). Other major ethnicities represented are Chin, Rakhine, PaO and Shan. Figure 4 shows the ethnic composition of the respondents. About 78% of respondents are Buddhist and 20% are Christian.

¹⁰ The percentages for each category add up to more than 100% as some respondents selected more than one category of occupation.

Figure 4: Ethnic composition of respondents



Less than half of the respondents (41%) have completed primary schooling. About a quarter have had no schooling and only 10% have completed tertiary education. About 65% of the respondents can read and write Myanmar and 27% cannot read or write Myanmar. A small percentage can read but cannot write. Literacy in Myanmar language is a key issue in being able to access nationally sourced information from media channels available, as well as in use of mobile messaging and internet services.

B. AGRICULTURAL AND LIVELIHOOD SITUATION

This section describes the livelihood situation of the villagers in the study areas based on information collected from the household survey.

INCOME SOURCES

The majority of the households (56%) interviewed have agricultural farming as their main source of income. About 20% of respondents rely on casual labour or daily labour¹¹ as a main source of income. Approximately half of the respondents indicated that there is at least one person in the household who works as a casual labourer. Furthermore, almost half of the respondents indicated that they hire labour to work on their farm, fish pond or in their household. About 10% of the respondents rely on small trade and artisanal/craft work as the main source of income.

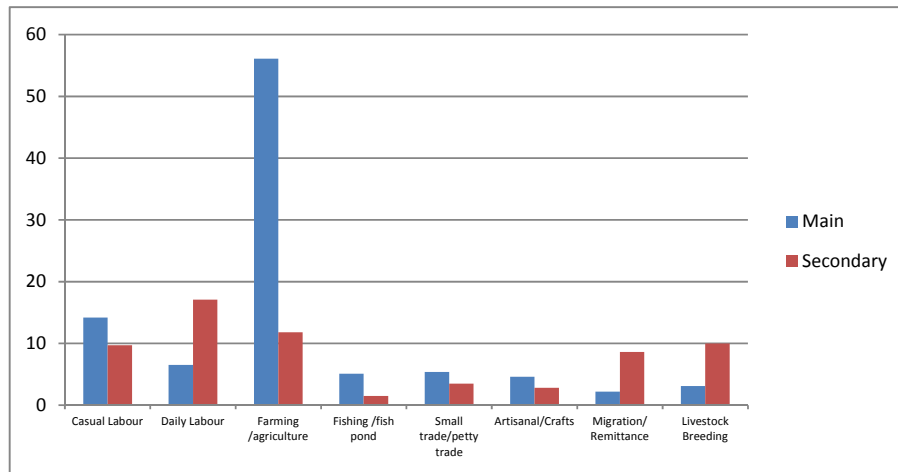
The main secondary source of income is daily labour (see Footnote 11 for difference between casual labour and daily labour). Farming and casual labour are also other important secondary income sources. Other important forms of secondary income are livestock breeding and remittances from migrants. Livestock breeding is particularly important in Mandalay as a secondary income source but is also significant in Shan, Chin and Ayeyawady. There is very little livestock breeding in Rakhine.

About a quarter of the households indicated that they have at least one household member who has migrated to look for work often with one or two migrating for work. Migration is higher in Rakhine, Chin and Mandalay than in Shan and Ayeyawady. In Rakhine, remittances from migrants are the key secondary income source.

¹¹ In Burmese, casual labour (*Kyar Ban*) refers to seasonal workers who work as general labourers in different areas of work and are available for hire when needed, e.g. during harvesting, for pond digging or carrying bricks in a construction site. A casual labourer usually spends their nights in the house and is not a migrant. Daily labour (*Ney Sar*) refers to workers who work in a specific field/area of work for daily wages, e.g. as a cook or guard on a plantation or a skilled worker on a construction site.

Only a small percentage (3%) rely on petty trade or artisanal/craft work as a secondary source of income. Less than 1% of households supplement their household income through selling non-timber forest products. Figure 5 shows the main and secondary income sources of the households in the study.

Figure 5: Household income sources



ACCESS TO AGRICULTURAL LAND

About 67% of the respondents indicate that they own land¹² but the percentage varied significantly between states and regions. Land ownership was highest in Shan state where 93% stated that they own land and lowest in Ayeyawady and Rakhine where 48% and 52% indicated that they own land respectively. The average size of land owned was highest in the Ayeyawady region at about 11 acres and lowest in Chin state at 2 acres. The average size of landholding overall is about 6 acres. In Ayeyawady region, although average land ownership is 11 acres, the average land size cultivated is 6.5 acres; some of the land owned may be flooded areas or fish ponds.

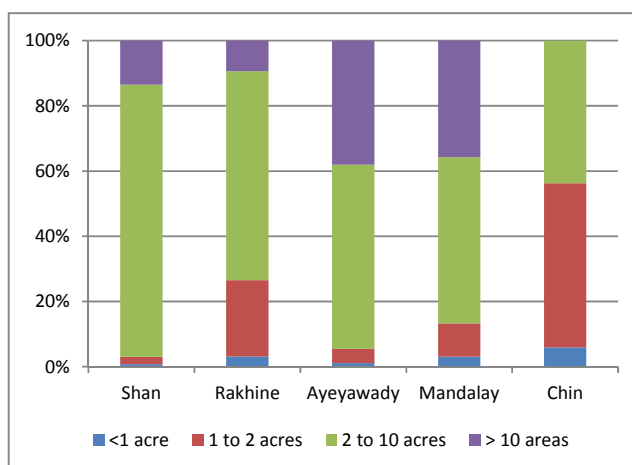
In Chin state, the average land area cultivated, including land not owned, is 1.4 acres. The *average* area of land cultivated by each farming household in the other states/regions is similar (5 to 6 acres) but this masks the variations in the actual size of land cultivated. In Ayeyawady and Mandalay regions, a significant proportion (about 35%) of households cultivate on land of more than 10 acres. In Shan and Rakhine, this proportion is lower (about 10%), but in Shan there are few households which cultivate less than 2 acres of land. In Chin state, there are no households which cultivate more than 10 acres of land and more than half (56%) cultivate less than 2 acres of land. Overall a small number of respondents (15%) cultivate on land they do not own.

Most of the land cultivated is rain-fed with irrigation available to only a very small proportion of households. Overall only about 4% of respondents have access to irrigation, with access highest in Ayeyawady and Mandalay. The dominant types of agriculture in Rakhine and Shan are rain-fed permanent cultivation. In Chin and Mandalay, rain-fed rotational cultivation is dominant. In all areas except Rakhine, mixed cultivation is also present.

¹² The study interpreted land ownership broadly to include cases where land is formally titled and registered in one or more household member's name; land that has been purchased, transferred or inherited but not formally titled (or if titled not registered in the household's name); land leased from government; and land where the household believes it has an established right (formal or informal) to use the land, a right that is generally recognized by the community

Figure 6: Land area cultivated by households

	Average land size cultivated (acres)
Shan	5.0
Ayeyawady	6.5
Rakhine	5.3
Mandalay	6.1
Chin	1.4
Total	4.5

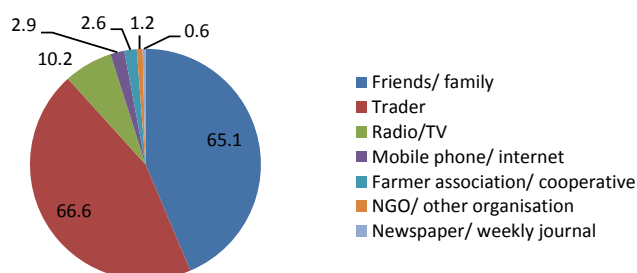


HOUSEHOLD CROP PRODUCTION AND MARKETING

Only about 70% of the study participants interviewed indicated that they planted a crop during the current monsoon season. The other respondents are likely casual and daily labourers or fisher folk. Most of them planted cereal crops, roots or tubers as the main crop during the monsoon season, of which about half planted rice. About half of the respondents (58%) planted more than one crop with pulses and oilseed crops such as peanuts, sesame, mustard and sunflower seeds being the key secondary crops. About a third of households also planted a crop before the current monsoon season, with vegetable and aromatic crops being the main crops grown.

Most of the farmers sell their crops individually with only about 4% who sell their crops as a group. The majority are able to access information about crop prices before selling (90%), except in Chin state where only 60% of respondents indicated that they were able to do so. Many farmers in Chin state do not sell their crops. The main sources of price information are from traders and friends/family. A few receive them from radio/TV. Mobile phone/internet, farmer associations/cooperatives, NGOs/other organisations and newspapers/weekly journals are not key sources of information on prices.

Figure 7: Source of information on crop prices¹³



Of those who were able to get some information about prices, about three quarters sold it at a higher price and a fifth at a lower price than the price they were quoted. Many of the farmers (slightly less than half) sell their crops in their own village or village tract indicating that they do not seek external markets for their crops and sell primary to traders to who come to their villages to buy their crops. The remainder sell at the market town.

¹³ Each respondent could select more than one category thus the percentages add up to more than 100%.

C. OVERVIEW OF INFORMATION NEEDS AND COMMUNICATION CHANNELS

This section provides an **overview** of the qualitative and quantitative data collected on what types of agriculture and livelihoods related information the respondents need, and on what communication channels they currently use and would prefer to receive information from. The data is disaggregated by state/region, gender, education level, land size cultivated in the last year, type of livelihood and distance from the market. Each information category and means of communication is further explored in Sections D and E respectively.

AGRICULTURE AND LIVELIHOOD INFORMATION NEEDS

OVERALL FINDINGS

Almost all respondents indicated that they need information in all the information categories identified in the household survey – production assets, commodity markets, casual labour markets, technology and innovation, training and extension, nutrition, input markets, credit and financial support, laws and policies, and weather and environment. This was confirmed in focus group discussions and key informant interviews where respondents often mentioned many of the information categories listed in the household questionnaire. The data shows very little significant differences in the answers given by respondents in different information categories even when the data is disaggregated by different respondent characteristics. A key finding is thus that there are high information needs in all areas. However, while needs in all information areas are high, the analysis has sought to understand the differences in priority given to different areas, i.e. to identify areas where information needs are very high from those which are less high.

The percentage of people who indicated that they have a need for information in each of the information categories (listed from highest overall need to lowest need) is shown in Table 5 below.

The information categories which scored the highest are nutrition, and the weather and environment. Only a handful (less than 10 of the 720) of people indicated they do not need information in these categories. 99.9% of the respondents surveyed indicated that they need information on nutrition, including information on the nutritious benefits of different types of foods, on a balanced and diversified diet and on how to prepare nutritious food. This finding however was not reflected in the key informant interviews and focus group discussions, with only a few people mentioning nutrition as a category of information need, likely because people do not associate nutrition with agriculture and livelihoods even though it is a key factor of food security.

Table 5: Percentage of respondents who indicate they need information related to different categories

	Total	State/region				
		Shan	Ayeyawady	Rakhine	Mandalay	Chin
Nutrition	99.9%	100.0%	100.0%	99.3%	100.0%	100.0%
Weather and environment	99.6%	100.0%	100.0%	100.0%	97.9%	100.0%
Credit and financial support	95.1%	99.3%	99.3%	98.6%	88.9%	89.6%
Commodity market	93.6%	100.0%	93.1%	96.5%	85.4%	93.1%
Training and extension	93.3%	98.6%	96.5%	93.8%	80.6%	97.2%
Casual labour markets	92.6%	97.2%	94.4%	94.4%	84.0%	93.1%
Technology and innovations	92.6%	97.9%	95.8%	94.4%	75.0%	100.0%
Laws and policies	91.9%	98.6%	95.8%	97.2%	70.1%	97.9%
Input markets	90.4%	97.2%	90.3%	91.7%	75.0%	97.9%
Production assets	85.3%	97.2%	93.1%	84.7%	68.1%	83.3%

Table 6: Most important types of information needed

Rank	Type of information	Index of importance
1	Rainfall	8.83
2	Healthy foods	8.72
3	Effect of weather on crop production	8.41
4	Soil degradation and soil conservation	8.37
5	Temperature, sunshine and other weather conditions	8.37
6	How to mitigate weather changes	8.36
7	Nutritious benefits of food	8.26
8	Balanced and diversified diet	8.20
9	How to prepare nutritious food	8.18
10	Prices of nutritious food	8.14
11	Where to get credit	7.55
12	Land laws and policies	7.53
13	Interest rates and other costs of credit	7.37
14	New farming/fishing methods	7.35
15	New types of seeds/cuttings	7.34
16	Quality of agricultural inputs	7.25
17	Cost of casual labour	7.23
18	Technique used to apply inputs	7.22
19	New fertilizers/pesticides	7.21
20	Fertilizer and pesticides laws and policies	7.19

Index of importance

In the household survey, respondents who indicated that they need a particular type of information (e.g. purchase or sales prices of production assets) were asked to rate how important the type of information is to them using the following choices: 1=not so important, 2=important, 3=very important. The Index of Importance is a scaled average of the score given by all participants. It ranges from 0 to 10 with zero indicating a low level of importance and 10 a high level of importance.

The categories which scored the lowest were in production assets and input markets. This is likely because a substantial proportion of the respondents are casual labourers or subsistence farmers who do not use many production assets and purchase many inputs. Although the category on laws and policies ranks low in comparison with other categories, this is because the category included information needs related to fishing rights; substantially fewer people indicated a need for information on fishing rights (as only about 5% of the respondents are fisher folk) but a high percentage indicate a need for information on other laws such as the land law. When information on fishing rights is excluded, the category ranks higher.

Within each information category, the study asked questions about respondents needs with regards to different types of information. For example, within the category of weather and environment, the study asked respondents on their need for information regarding rainfall; temperature, sunshine and other weather conditions; effect of weather on crop production; how to mitigate weather changes; and soil degradation and conservation. When comparing all the different types of information within all category areas, the top twenty types of information, starting from most important using the Index of Importance, is shown in Table 6. The most important type of information needed is on rainfall followed by healthy foods. This data is explored further in the next section.

BY STATE/REGION

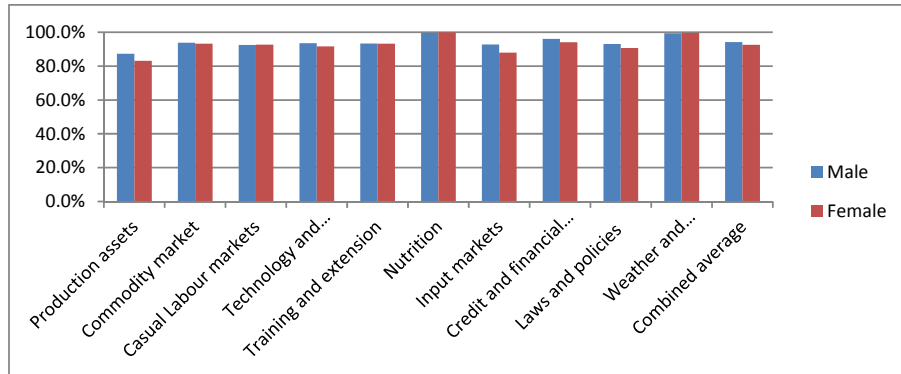
Information needs were lowest in Mandalay (see Table 5). The only information categories which had high need in Mandalay were in nutrition and weather. Interestingly, technology and innovations, laws and policies and input markets scored relatively low as categories of information needed in Mandalay whereas these categories scored very high in others states/regions.

Shan state had the highest information needs. However, there is little variation in information category needs in the other states/regions.

BY GENDER AND EDUCATION LEVEL

There is little difference in information needs between men and women from both the household survey and the focus group discussions. However, in general men reported having slightly higher information needs than women. Differences in information needs were highest in input markets and production assets with men indicating higher need than women. The categories where women had slightly higher information needs than men were in nutrition, casual labour markets and weather and environment.

Figure 8: Information needs by gender

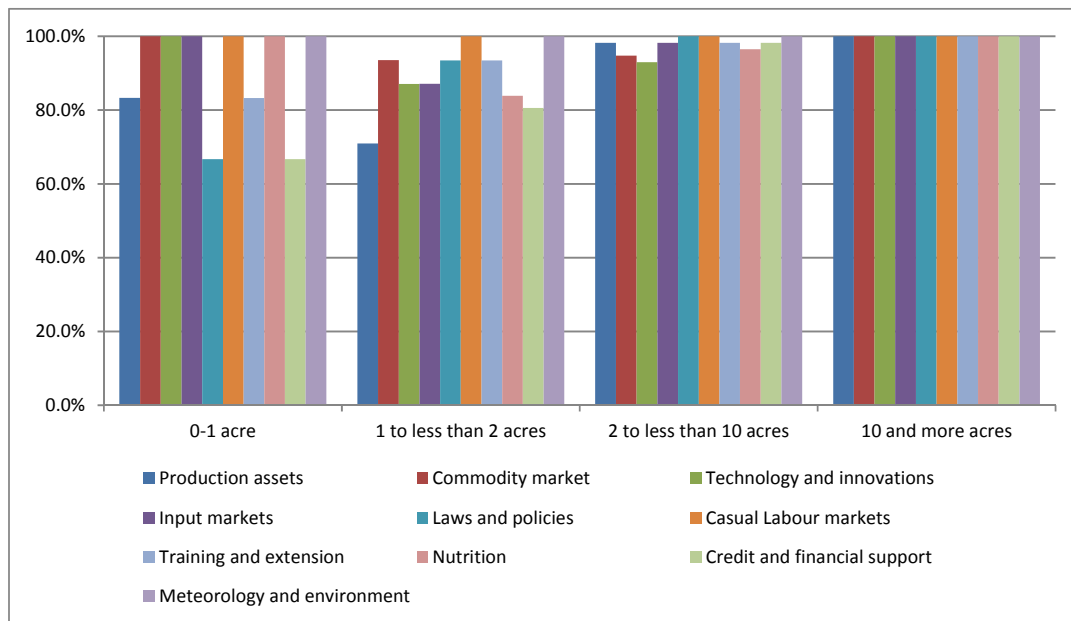


There is little difference in information needs between respondents of different education levels.

BY LAND SIZE CULTIVATED IN THE LAST YEAR

Among those who cultivated land in the last year, the data shows that information needs increase with the size of land cultivated. All of those who cultivated more than 10 acres of land identified a need for information in all areas included in the study. Respondents who cultivated less than one acre of land have very high information needs in some areas but less so in laws and policies, credit and finance, production assets and training and extension.

Figure 9: Information needs by size of land cultivated



BY TYPE OF LIVELIHOOD AND DISTANCE FROM MARKET

Information needs are highest for those whose main livelihood sources are agricultural farming and livestock and lowest for artisans/crafts people and casual/daily labour. This is because the categories of information included in the survey are targeted towards the agricultural sector.

There is not much difference in the information needs based on the distance from market.

MEANS OF COMMUNICATION

OVERALL ANALYSIS

Overall, the communication means that people have most access to is radio (about half of respondents) followed by mobile phone. Less than 5% of the respondents have access to internet although about 35% have access to a mobile phone. Only about a quarter of respondents have access to a TV and about 10% to journals.

The channel through which most people get information on agriculture and livelihoods is from friends and relatives. In focus group discussions, respondents indicated that they share the information they get with others from their village as well as from other villages, particularly when they meet at the market, at religious ceremonies or festivals. In Southern Shan state, most villagers go to the 5-day market in their area and meet with many people at that time. The market place is thus a very important place to get information on livelihoods.

Radio, TV and newspapers are also important sources of information on livelihoods, although as noted above, access to TV and newspapers is very low in the rural areas. Very few people are currently getting information by SMS. In focus group discussions, most respondents indicated that they do not know how to use SMS or internet on their mobile phone, even when it is available. In some areas, e.g. in PaO, the respondents mentioned that they do not understand Myanmar and thus would not be able to use SMS. However, most people are very interested in getting more information through SMS and internet and think that it will become an important information source in the future, particularly for the younger generation.

Figure 10: Access to information channels

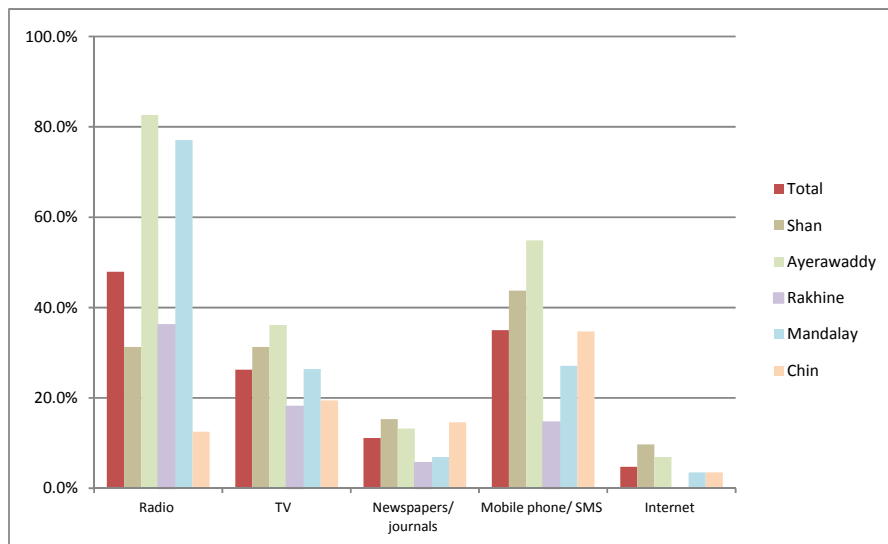
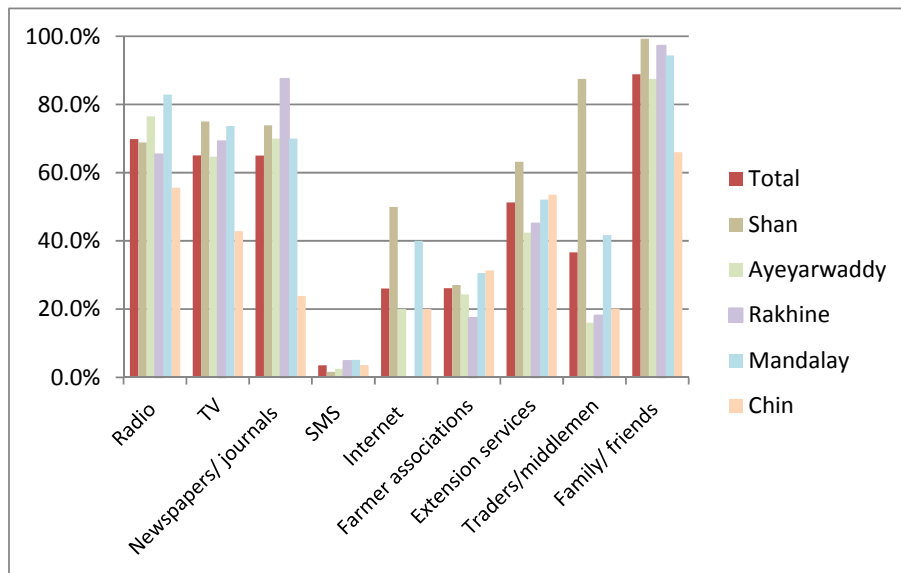
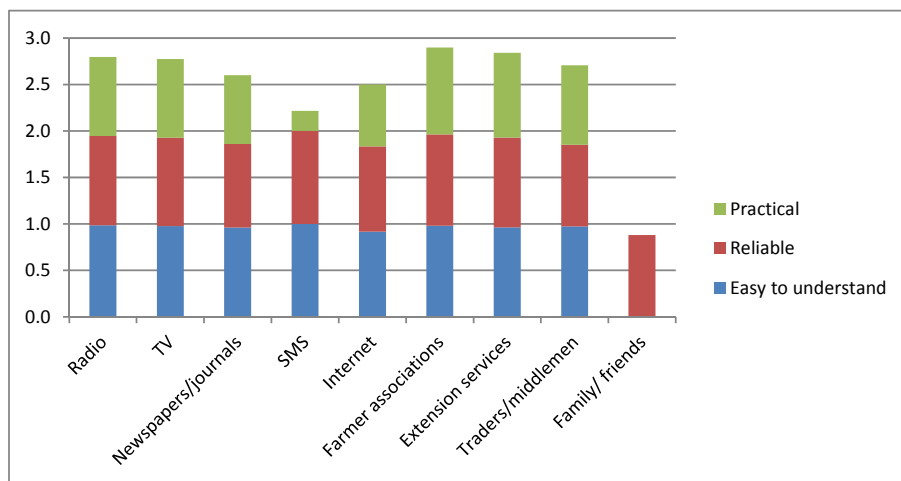


Figure 11: Use of information channels to get livelihoods information



While most people get livelihoods information from friends and relatives, it is considered a less reliable source of information. Almost all respondents find the information from all sources easy to understand. In focus group discussions, respondents indicate that they are not able to understand some English words used on the internet, and also sometimes on the radio or TV. Information from farmers’ associations/cooperatives and extension workers are the most practical. They are also the most useful, taking into account all three factors – easy to understand, reliable and practical. The results show that information from SMS and internet are the least practical and useful overall; however, this data should be interpreted with caution as very few respondents (only 5) are currently accessing livelihoods information by SMS and internet.

Figure 12: Overall usefulness of information from different information channels^{14,15}



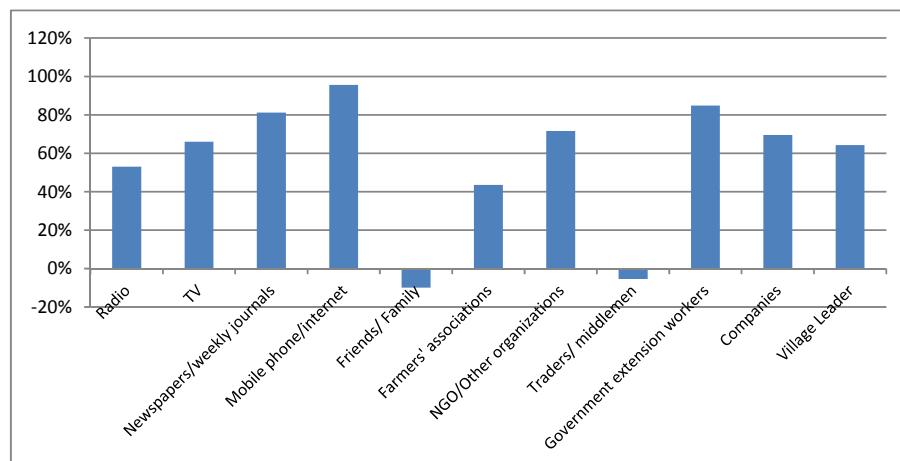
¹⁴ The questionnaire did not ask respondents about whether information from friends/family is easy to understand or reliable.

¹⁵ Each coloured bar shows the percent of people who said that the information they receive from an information channel is either useful, practical or easy to understand, scaled to a scale of 0 to 1. For example, if 35% of respondents said that the information receive from radio is easy to understand, then the blue bar for radio is 0.35 in length.

Unmet Need Index

The Unmet Need Index shows the gap between the Current Media Index and Preferred Media Index (see Textbox linked to Figure 17 for explanation of these indices). The Unmet Need Index ranges from 0 to 1, with zero indicating a low gap and 1 indicating a high unmet need for that information channel.

Figure 13: Unmet Need Index for different means of communication



Although there are few people who currently have access to internet and a low proportion of people who use internet to access information on livelihoods, there is a keen interest among respondents to get more information through the internet. Almost all respondents in focus group discussions and key informant interviews noted that mobile phones and internet will become more important in the future. The Unmet Need Index¹⁶, which compares current versus preferred use of a particular means of communication, is highest for mobile phones/internet. There is also a desire for government extension workers to provide more information than they currently do. Furthermore, although many NGOs are providing extension services in the study areas including through funding from LIFT, there is a preference for more information to come from these sources¹⁷. Conversely, there is a desire to be less dependent on friends and family as well as traders and middlemen (negative Unmet Need Index).

BY STATE/REGION

Analysis of the data by state/region, however, shows significant variations in access to different media channels and where respondents currently get information on livelihoods. This is discussed in more detail in Section E.

Language is a key factor affecting communications in ethnic areas. Most of the livelihood information currently produced is only in Myanmar language and many ethnic people in the study areas (e.g. PaO and Chin) cannot understand or read Myanmar. As noted before only 65% of the respondents in the household survey could read and write Myanmar. Where information is provided in person, e.g. extension services, they are more likely to be provided in local languages. Mass media information such as radio, TV and internet are primarily in Myanmar and not available in local languages. Infrastructure such as communication towers/relay stations, road infrastructure and electricity are other key barriers for communications in some states/regions such as Chin and Rakhine.

BY GENDER AND EDUCATION LEVEL

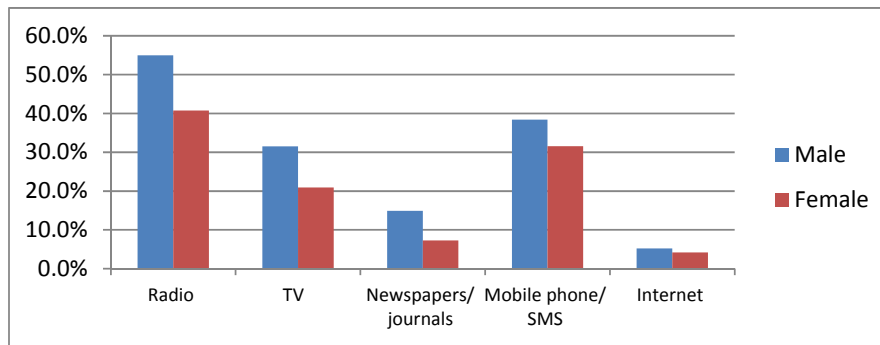
In general, men have better access to all means of communications than women. There is little difference, however, in how men and women get information on livelihoods. In focus group discussions, women in some areas noted that they are not able to attend trainings offered by NGOs because they do not have time as they

¹⁶ Unmet Need Index = 1 – (Current Media Index)/(Preferred Media Index)

¹⁷ Although not possible to substantiate, the preference for more information from government and NGOs may be because the study is seen to be supported by the government and NGOs.

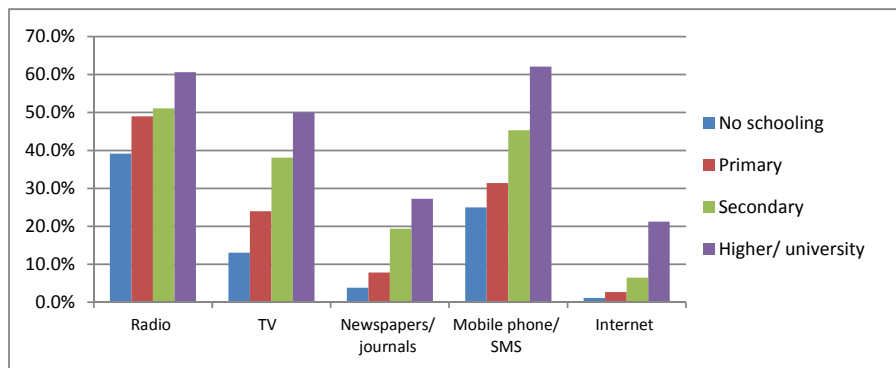
have to work in the fields as well as take care of children and the housework. Some women listed “husbands” as a source of information.

Figure 14: Access to communication channels by gender



As expected, access to all means of communications also increases with level of education. However, among those who do have access, there is no clear difference in whether they use it to get information on livelihoods among respondents of different education levels. This implies that education levels may be less important a factor in use of communication channels than other factors related to education such as income (where people with less schooling earn less and thus are less able to afford to buy different communications equipment).

Figure 15: Access to means of communications by education levels



BY TYPE OF LIVELIHOOD AND DISTANCE TO MARKET

Traders have the highest access to all forms of communication; this is because they usually live in the main towns. Those whose main source of income is fishing/fish breeding have the lowest access. None of the fisher folk in the study have access to newspapers and journals, mobile phone or internet.

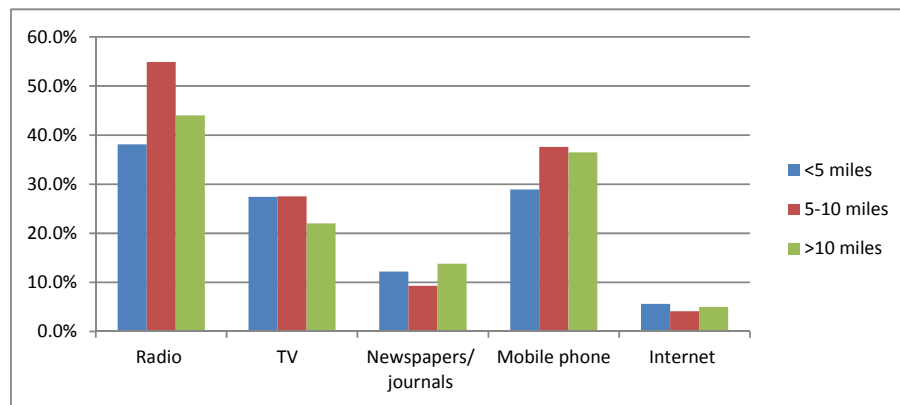
Farmers/livestock breeders and traders are more likely to access all different types of channels of communications for information on livelihoods compared to other occupations. For all livelihood types, including traders and middlemen, friends and family remain the most important sources of information. Radio is an important source for farmers/livestock breeders and traders. Those who rely on fishing/fish ponds get very little information from most types of communication channels compared to those dependent on other types of livelihood. Fisher folk rely most on radio and extension services for their livelihood information, apart from friends and family members.

Table 7: Use of different communication channels to access livelihood information

	Labourers	Farmers/ livestock breeders	Fisher folk	Traders/ brokers	Artisans /skilled workers
Radio	62.3%	78.9%	66.7%	85.2%	62.5%
Television	62.5%	69.4%	25.0%	68.4%	54.5%
Newspapers/ journals	12.5%	70.9%	0.0%	85.7%	20.0%
SMS	6.3%	1.3%	0.0%	4.3%	0.0%
Internet	25.0%	45.0%	0.0%	20.0%	0.0%
Farmers' associations/ cooperatives	18.1%	31.5%	10.8%	19.5%	21.2%
Extension services	44.3%	52.7%	51.4%	41.5%	57.6%
Traders/middlemen	19.5%	45.2%	24.3%	34.1%	30.3%
Family/friends	84.6%	90.4%	97.3%	92.7%	81.8%

Surprisingly, there is not much difference in access to means of communications by distance to market. Similarly there is little effect of distance from market in whether they use the channels to access information on livelihoods.

Figure 16: Access to means of communications by distance from market



D. AGRICULTURE AND LIVELIHOOD INFORMATION NEEDS

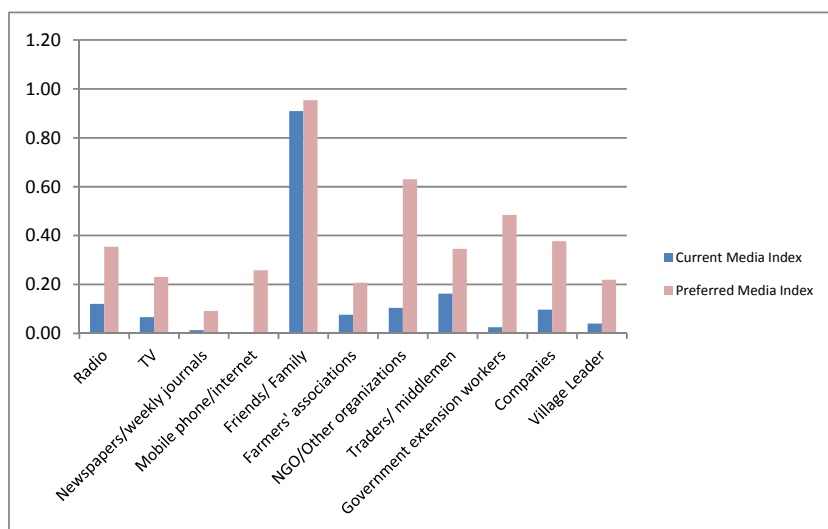
This section provides a detailed analysis of the agriculture and livelihood information needs of respondents for the different information categories in the study.

PRODUCTION ASSETS

As noted before, production assets scored lowest in the categories of information needed. In particular, it is low for casual labourers and traders. Further analysis however, shows that it is an important category of information need for those whose main income source is farming and livestock breeding, and fishing/fish breeding.

Among those who indicated a need for information on production assets, respondents indicated that the information needed is of medium importance (Index of Importance = 6.4).

Figure 17: Current use versus preference to receive information on production assets



In focus group discussions and key informant interviews, some respondents mentioned maintenance of productive assets, leasing options and sources of credit for purchasing productive assets as important information needs. Many respondents mentioned a shortage of labour as a key constraint and thus an interest in use of machinery. However, the cost of machinery is beyond most farmers' means and while there are schemes for joint purchasing, these are still not often used by farmers. The use of machinery increases productivity but requires wider fields and other inputs such as fuel and maintenance costs which many farmers cannot afford.

The main current source of information on production assets is friends and family. They are also the preferred source of information. Other key preferred sources of information are NGOs/other organisations, government extension workers, traders/middlemen and radio. In comparing the current versus the preferred source of information, there is a much higher aspiration to receive information from NGOs and government extension workers.

COMMODITY MARKETS

Commodity markets is a relatively important area of information need, in particular information related to sales prices of crops and sale price relative to quality. More than a quarter of respondents indicated that crop prices and prices relative to quality are very important to them. The types of crops which respondents need information about differ in different areas. For example, in Shan state, there is strong interest in knowing the price of corn, which is a main crop, while in Ayeyawady and Rakhine regions, respondents indicated an interest in knowing the prices of paddy as well as for crabs, fish and prawns. In Chin state, respondents in focus group discussions mentioned an interest in the demand for elephant foot yam. In Mandalay, in addition to crop prices, respondents are interested in markets for livestock products.

During focus group discussions, respondents mentioned that knowing the price of commodities allows them to avoid being cheated by traders and middlemen. Some farmers are also able to wait to sell their products. Knowing the prices, including international demand, also helps to know which crops to grow.

However, in some areas, respondents noted that they usually borrow from middlemen to purchase inputs to plant their crops and have to sell to these middlemen immediately after the harvest irrespective of the prices in the open market. Having information about sales prices is thus not useful to them. Furthermore, the prices received from the radio are for prices in Yangon or major commodity markets and the units and prices in their

Current and Preferred Media Index

The respondents were asked how they currently receive information on each information category, selecting their first, second and third channels of information. Similarly, they were asked to identify their three preferred channels to receive such information.

The **Current Media Index** is a composite index of how many respondents selected a particular channel as first, second, third or not used.

The **Preferred Media Index** is a similar composite index of preferred channels.

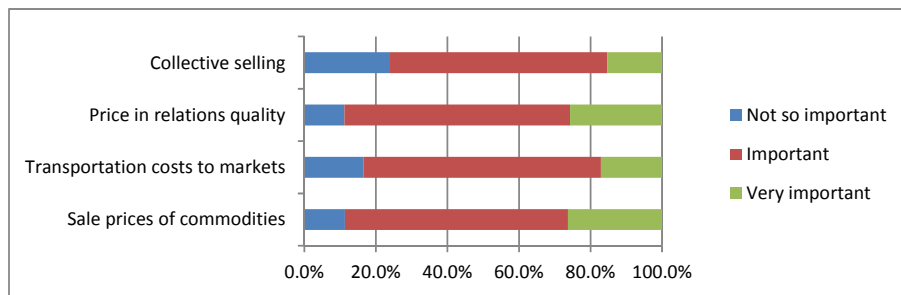
The Current Media Index and Preferred Media Index range from 0 to 3 with zero indicating very low current use or preference and 3 indicating very high current use or preference.

local areas differ. The prices quoted also do not include transportation costs. Traders and middlemen do not follow the listed prices and farmers still have to sell to them at the quoted prices. The list of crops for which prices are available is also limited. In some areas, NGOs put up notice boards with information on crop prices but these prices are only updated once a month and thus not that useful.

Some farmers prefer to sell to middlemen rather than seek other markets outside their village as they do not want to deal with transport costs. In areas such as Chin and Rakhine states, the farmers are subsistence farmers who buy rice and other products for consumption rather than sell their products and thus have little interest in commodity prices.

Interestingly, about a quarter of respondents indicated that information on collective selling is not so important to them even though such schemes can help to increase prices obtained by farmers for the sale of their produce.

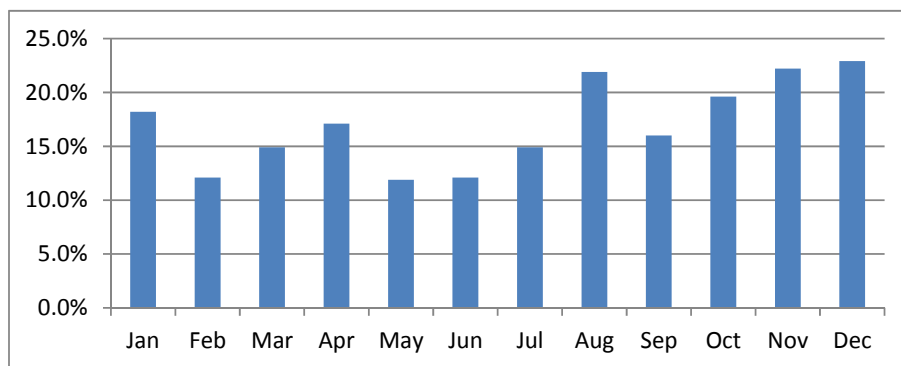
Figure 18: Importance of different types of information related to commodity markets



Most respondents currently receive information on commodity markets from friends and family or from traders and middlemen. Although these are also strongly preferred information sources for the future, many would like to decrease their dependence on these sources of information (a negative Unmet Need Index). Other preferred information sources are NGOs/other organisations, radio and mobile phone/internet with many more preferring to get information from NGOs/other organisations as well as mobile phone/internet compared to current users (high Unmet Need Index).

Information on commodity markets is needed throughout the year with peaks in August, November and December, corresponding to the harvest season for the monsoon and winter crops.

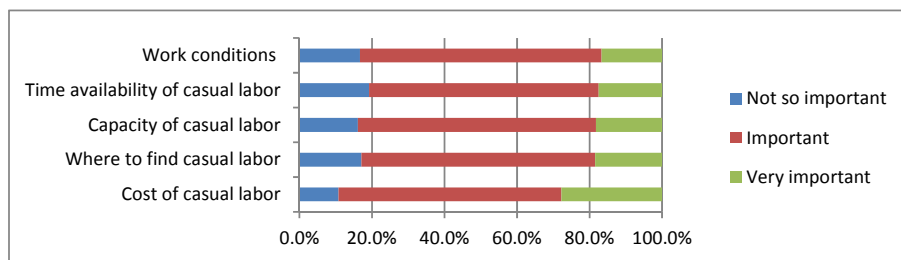
Figure 19: Months during which information on commodity prices is needed



CASUAL LABOUR MARKETS

With regards to information on casual labour markets, the cost of labour is the most important type of information to know. This is important for both casual labourers as well as farmers/livestock breeders and fisher folk/fish breeders. Other elements – where to find labour, capacity, time availability and work conditions – were also of relative importance.

Figure 20: Importance of different types of information on casual labour markets



As with other information categories, friends and family are the main current source of information on casual labour markets. Most respondents also indicated this as the main preferred source of information with little change in preferences as a personal reference from someone you know about the labour you hire is more likely to be trusted than information from mass media channels. There is some wish for more information to be available from NGOs/other organisations and farmers associations/organisations but these remain of low preference in comparison with friends and family.

In focus group discussions, respondents indicated a need for information on where jobs are available.

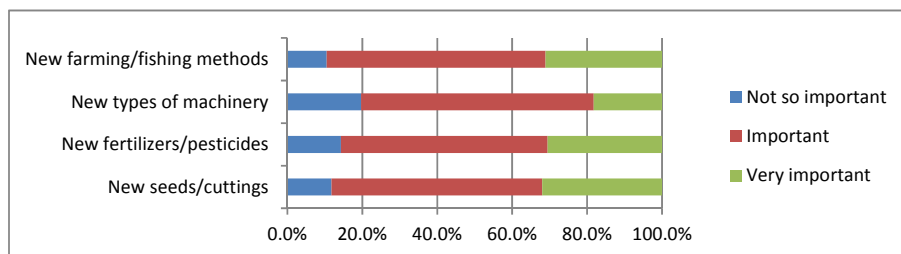
TECHNOLOGY AND INNOVATION

Many respondents consider information on technology and innovation very important, in particular information on new seeds and cuttings, new types of fertilizers and pesticides and new planting or fishing and farming methods. Information on new machinery is important but less so in comparison. This category of information was the most commonly mentioned information need in focus group discussions and key informant interviews. Many respondents noted that they have learnt about new seeds or planting methods, including organic farming methods from NGOs. Most of the study areas, except Mandalay, are areas where LIFT partners are already working and thus the respondents have received some extension services from NGOs. They noted that their yields have increased using the techniques introduced.

In Shan state, respondents mentioned having received information from Metta foundation, UNODC and UNDP, as well as from the PaO National Organisation. In Chin state, organisations mentioned were Gret, WFP, CARE, Mya Sein Yaung, Merlin and UNDP. Reveal Help Age International was the organisation most commonly mentioned in Mandalay; Gret in Ayeyawady region and International Refugee Council in Rakhine state. These organisation primarily correspond with the LIFT implementing partners that facilitated access to the villages for the study; most respondents have thus been beneficiaries of the LIFT projects of these organisations.

However, some respondents noted that they are not able to apply the information they have received because of labour shortage (for labour intensive methods), high cost of new seeds or high cost of new fertilizers which they cannot afford. At times, the information received from traders or companies is not accurate and their crops fail resulting in losses for them. In particular, respondents talked about “fake” or non-effective fertilizers, although some noted that the effect may be because of inappropriate application or unsuitability for the conditions in their area.

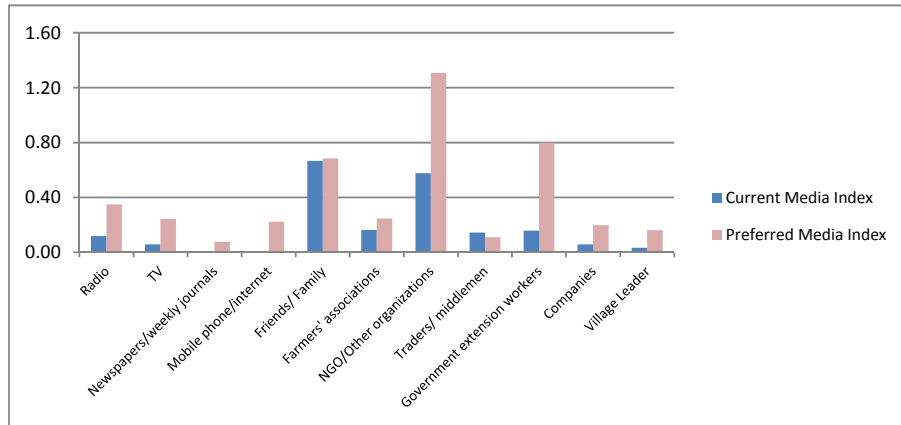
Figure 21: Importance of different types of information on technology and innovation



Many farmers are reluctant to try out new seeds or planting methods which have not been demonstrated to have an impact. They thus take a wait and see approach as other farmers try them out, or try them on a small plot of their land, before using it throughout their fields. Adoption of new techniques thus takes time to multiply.

As with other categories of information, friends and family are the main current source of information on technology and innovation. However, most respondents would prefer to receive such information from NGOs/other organisations and government extension workers. This indicates a strong interest in information services from both NGOs and government which are not currently being met.

Figure 22: Current and preferred sources of information on technology and innovation



TRAINING AND EXTENSION

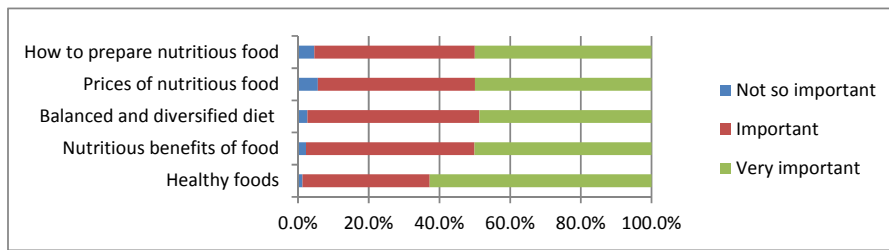
More respondents consider 'where to find training and extension services' "very important" compared to other elements of information on training and extension (costs, providers, types and timing of training) although the other elements are also important. In some focus group discussions, respondents indicated a particular interest in learning about diseases and treatment of diseases, for both plants and livestock. One respondent mentioned that he took a picture of a plant affected by disease and sent it to the Department of Agriculture by SMS in order to get advice on how to manage the problem. This was an innovative way of getting advice. There was also strong interest in learning more about livestock breeding techniques.

Unlike other categories of information, most respondents currently get information on training and extension from NGOs and other organisations rather than from friends and family. While respondents indicated that NGOs and other organisations are also their preferred source of information, more people would also like to receive such information from government extension workers. This corresponds with the findings from the category of technology and innovations where respondents indicated a strong interest in learning from NGOs and government extension workers. Both government and NGO extension services are insufficient to cover the need. In Shan state, one of the village heads noted that NGO training is only available to 15% of villagers and others learn from those who have attended the training.

NUTRITION

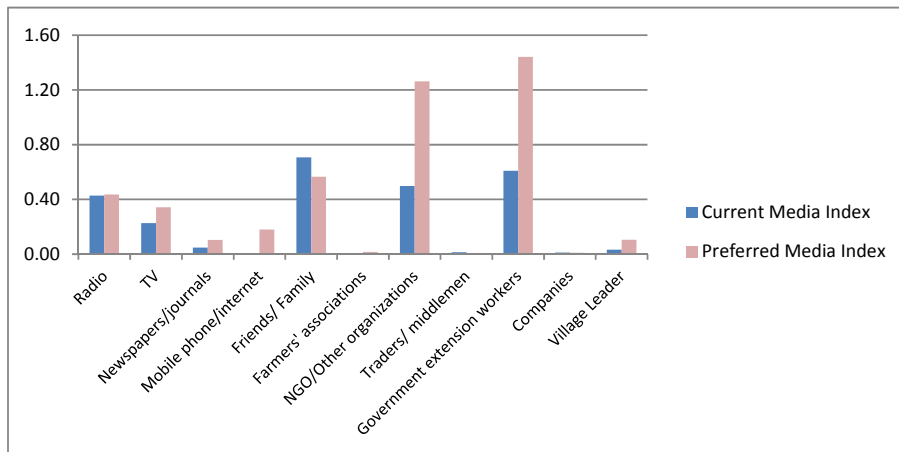
As noted above, there is a particularly strong need for information on nutrition. Most respondents consider information on healthy foods to be "very important." More respondents indicated that the elements on nutrition are "very important" in comparison with other information categories and fewer indicated that they are "not so important."

Figure 23: Importance of different types of information on nutrition



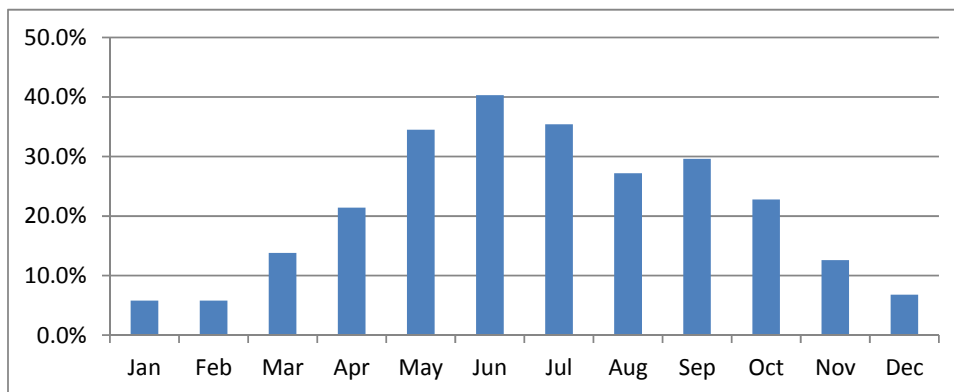
Friends and family, government extension workers, NGOs/other organisations and radio are the most common current source of information on nutrition. However, there is a strong preference for more information to be provided by government extension workers and NGOs/other organisations and less dependence on it from friends and family. In this case, government extension workers may refer to health workers rather than agricultural extension workers.

Figure 24: Current and preferred sources of information on nutrition



The respondents' strong interest in more information on nutrition is an indication of their interest in information on nutritional diversity, food preparation and health benefits. The interest in information on nutrition may be because many of the households are food insecure. The household survey data indicates that at the peak month of June, about 40% of households indicate that they are food insecure. Food insecurity however, is present throughout the year.

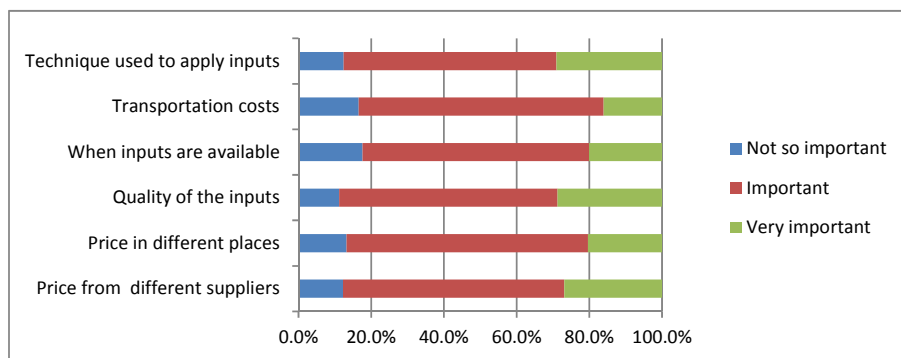
Figure 25: Percentage of respondents who are food insecure



INPUT MARKETS

A higher percentage of respondents consider information on application techniques, price of inputs from different suppliers and the quality of inputs to be “very important”. Respondents in focus group discussions indicated an interest in know the prices of inputs such as seeds, fertilizers, pesticides, weedicides, as well as for fuel and ice for fisher folk. Other elements of information on input markets – price in different places, when inputs are available and transportation costs are also considered important. During focus group discussions, many respondents stressed the importance of knowing the quality of seeds and which types of seeds to plant. Sometimes seeds are promoted by companies but fail to provide a high yield or are not suitable for their area.

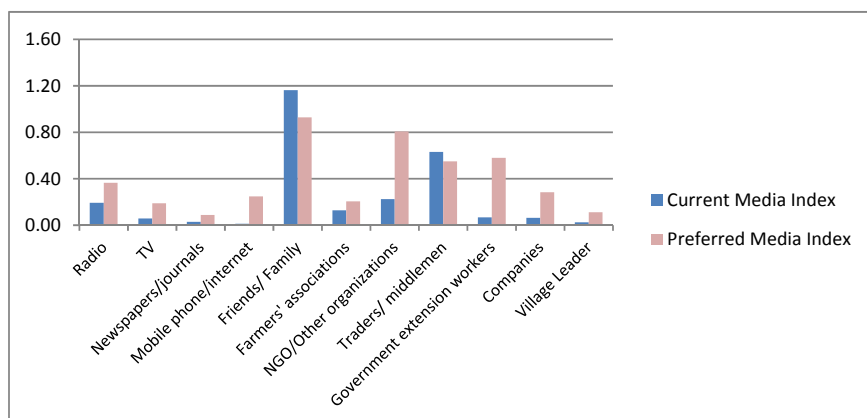
Figure 26: Importance of types of information on input markets



The information for input markets currently comes primarily from friends and family and traders. However, respondents indicated that they would prefer to rely less on friends and family and traders and instead get such information from NGOs and government extension workers. Some information is obtained from radio and more respondents would like to get such information from radio channels.

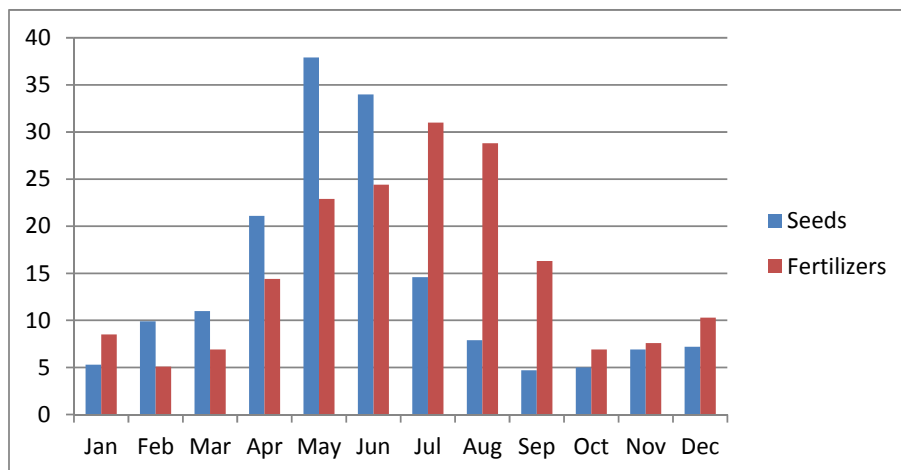
In focus group discussions, respondents mentioned that they usually call traders, middlemen or shop keepers or go to town to ask for information on inputs such as seeds, fertilizers and pesticides. They then share the information with their friends and families. The middlemen, brokers and shop keepers interviewed also mentioned that they provide such information to farmers. Many of the instructions on imported inputs are printed in Thai or Chinese and farmers rely on the sellers for information on how to use these inputs. Some shop keepers also have demonstration plots and provide information on the use of these inputs. However, some shop keepers are not able to provide advice or information and only sell the products. Many agro-chemical companies also have extension workers that go out to villages to market their products and provide demonstrations on the use of these inputs. However, they are seen to be selling only their own products and are not always trusted by the farmers.

Figure 27: Current and preferred sources of information on input markets



Information on seeds and fertilizers is needed throughout the year with the peak for seeds in May and for fertilizers in July.

Figure 28: Percentage of people who need information on seeds and fertilizers throughout the year

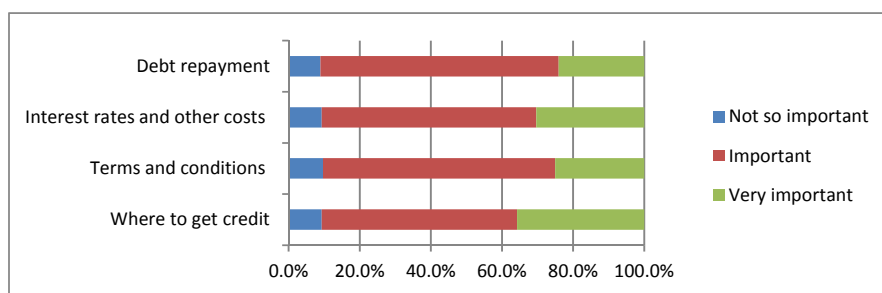


CREDIT AND FINANCE

There is a strong interest in information on credit and finance, ranking third in the category of information needed. More than 90% of respondents indicated that different elements of information about credit and finance are “important” or “very important” with only 10% indicating it is “not so important”. In particular, respondents think that information on where to get credit and cost of borrowing is very important.

Friends and family, NGOs and other associations as well as village leaders are the main source of information on credit and financing. Information on loans from government banks such as the Myanmar Agriculture and Development Bank (MADB) are disseminated through village leaders. Village tract leaders attend regular monthly township meetings at the General Administration Department where they get such information. They then disseminate it to village leaders who disseminate it to villagers through information distributors, loudspeakers or village meetings. Reminders on when repayments of these loans are due are also announced through village leaders.

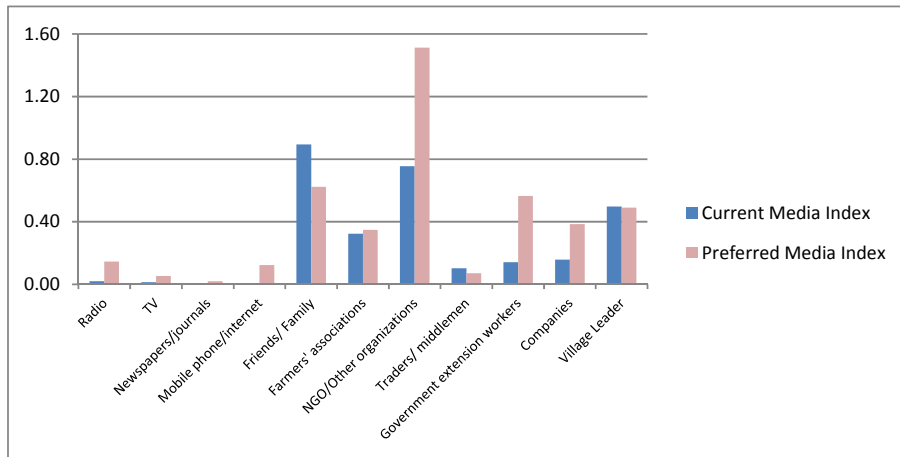
Figure 29: Importance of different types of information on credit and finance



There is however, a very strong interest to get more information on credit and financing from NGOs and other organisations in comparison with other information sources.

Some companies also provide credit for purchase of inputs and machinery and respondents indicated an interest in getting more information from private companies, as well as from government extension workers and farmers’ associations and cooperatives. There appears to be little interest to get such information from traders and middlemen even though they do provide credit, possibly because their interest rates are usually high.

Figure 30: Current and preferred sources of information credit and finances



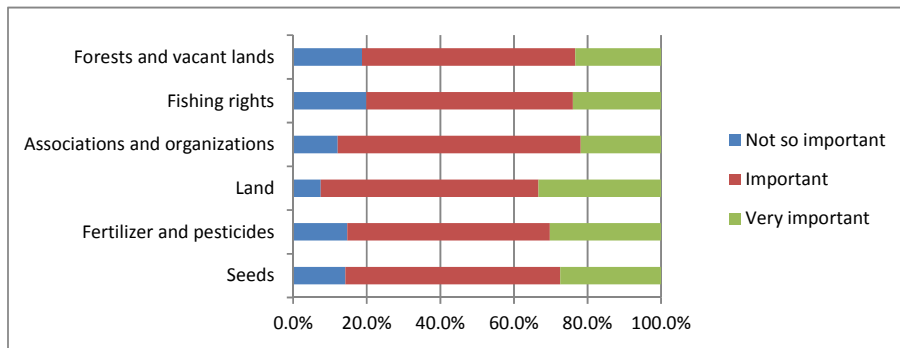
LAWS AND POLICIES

There is a particular interest in information about land rights. This is not surprising given the large controversy about land grabbing and the recent changes in the land law and land use policy. In key informant interviews, respondents noted the importance for farmers to know about the Land Use Certificate Form-7 which allows farmers to have right to use of the land they cultivate on. Many farmers are still unaware of the need for the certificate and may lose their right to use of their land. Farmers also need the certificate to be able to get loans from the Myanmar Agricultural Development Bank.

Information on laws and policies related to seeds, fertilizers and pesticides and forming associations are also considered important. There have also been recent changes to the Seed Law and Association Law which have an impact on small farmers' ability to obtain good quality seeds and to form associative structures.

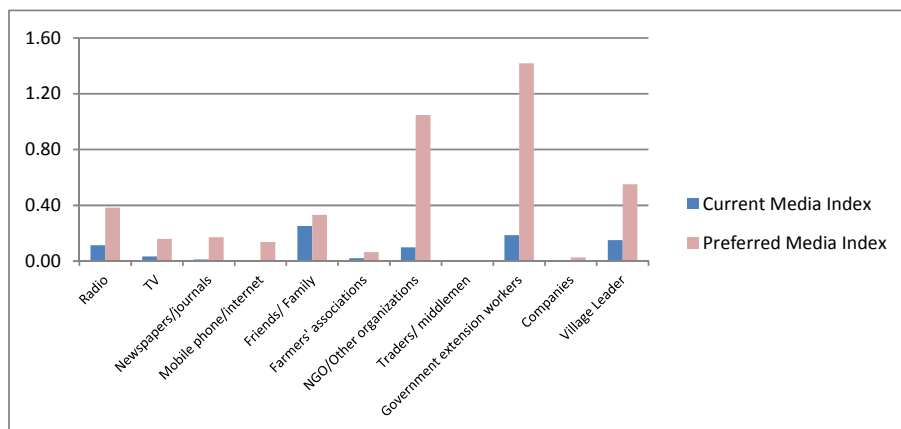
There is less interest in information on fishing rights and use of forests and vacant land, although it is also considered relatively important.

Figure 31: Importance of information on laws and policies



Most people currently get information on laws and policies from friends and family, government extension workers and village leaders. However, there is a strong preference to get more information from NGOs/other organisations, although government extension workers and village leaders continue to be important preferred sources of information.

Figure 32: Current and preferred sources of information on laws and policies



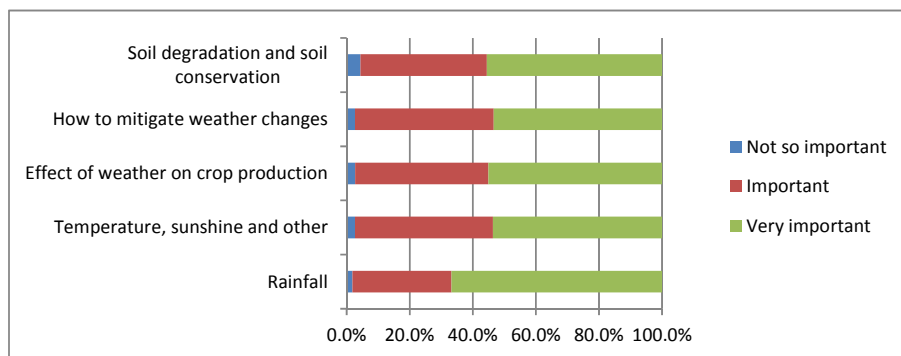
WEATHER AND ENVIRONMENT

As noted before, weather and environment is a very important information need with more than 50% of respondents indicating that it is “very important”. Less than 5% think it is not so important. In particular, respondents are keen to get information on rainfall prediction – when it will rain and how much. In many focus group discussions, respondents indicated a strong interest in knowing about the weather. In Shan state, respondents noted that they used to sow their seeds in April and if the rains are late, the seeds do not germinate and they have to sow them again. If they have information on when the rains will start and soil moisture, they will be able to better time when they plant their seeds.

In Rakhine state, there was a strong interest in obtaining information about weather in order to be able to take measures against disasters as the area is a cyclone prone area. Many respondents also rely on open sea fishing for livelihoods and thus need to know about the weather to know if they should go fishing.

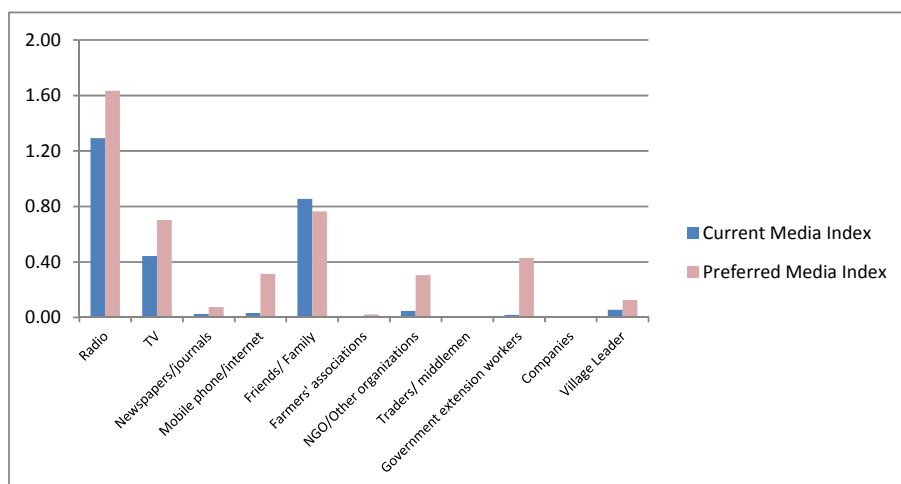
A key informant interview in Yangon with an organisation working on climate change noted that there are many changes in the climate which have an impact on farmers and it is important for farmers to know how to respond to these changes. For example, rains tend to come later and heavy rains continue till late in the rainy season and farmers need to adjust when they plant crops and how they harvest them in order to avoid losses. It is thus important for farmers not only to know about weather conditions but also to get advice on what to do. The informant noted that there is a need to develop the field of agriculture meteorology in Myanmar to provide such information.

Figure 33: Importance of different types of information on weather and environment



Radio, friends and family and TV are the main current sources of information on weather and environment. More respondents indicated a preference to receive such information from radio and TV as well as from government extension workers, NGOs and the mobile phone/internet.

Figure 34: Current and preferred sources of information on weather and environment



E. USE OF DIFFERENT MEANS OF COMMUNICATION

This section provides detailed analysis on the use of different means of communication.

FRIENDS AND FAMILY

Friends and family are the main source of information for most respondents. In Shan state, many respondents say that they meet with friends and family during market days as well as festivals and ceremonies such as pagoda festivals, ethnic national festivals and novication ceremonies. At this time, they exchange information, including information on livelihoods. In Shan state, there are markets every five days in the main towns such as Hopong town and people meet every five days and can get updated information. In pagoda festivals, they may share information on crop prices or methods of planting depending on the time of the festival.

Some respondents said that they sometimes obtain information by phone from traders and then share it with their friends.

Friends and family have a lot of influence and people adopt new techniques if they see that others have used them successfully. However, respondents would like to reduce their reliance on friends and family and receive information directly from other sources such as extension services and mass media channels.

RADIO

About 50% of participants in the household survey indicated that they have access to radio. The data however shows high variation between states and regions (Table 5). Access to radio is very high in the delta and Mandalay (about 80%) while it is lower in Shan and Rakhine (about 30%) and very low (less than 15%) in the Chin hills. The lower access in the three ethnic states is due to language barriers. In focus group discussions, many people in Shan and Chin indicated they do not listen to the radio because they do not understand the Myanmar language. There is yet limited broadcast of radio programmes in ethnic languages.

Of those who have access however, radio is an important source of information on livelihoods with 70% indicating so. Again, this was highest in Mandalay and Ayeyawady regions. In key informant interviews and focus group discussions, many respondents indicated that radio is an important source of information on weather and commodity prices. Radio is a useful means of receiving information because it is mobile and can be taken to the fields or to work. Many respondents in key informant interviews felt however that most people listen to songs on the radio and not to information programmes.

Of those who have access to radio, about three quarters listen to it everyday. Most people listen to radio in the afternoons and mornings and less so in the evenings.

The radio channels most listened to are the Myanmar Radio National Service and Shwe FM, most likely because they have the highest coverage in the study areas. Most of the radio channels are regional and can only be received in certain states/regions. Other popular channels are Padamyar FM, Padaukmyar FM, Thazin radio, Cherry FM and Pyinsawadi FM.

TELEVISION

Access to television is lowest in the Rakhine and Chin townships where only about 20% of respondents have access. In Shan, Ayeyawady and Mandalay, access is about 25-35%. In focus group discussions, TV was mentioned as a source of information only in Ayeyawady, Rakhine and Mandalay. Many respondents said that they do not have access to TV because of the need for electricity and a digital set-top box. The digital set-top box allows access to 14 channels¹⁸ in addition to MRTV and Myawady. Although the Ministry of Information has a programme to distribute digital set-top boxes, these tend to go to the village leader and are not being used due to the lack of electricity in many villages.

Like radio, language is a major barrier to accessing information by TV. In Shan, Chin and Rakhine states, respondents mentioned that they do not watch TV because they do not understand Myanmar. The NRC Channel broadcasts in ethnic languages but this is seen as propaganda by the viewers. In some areas, the television reception is poor when there is heavy rain.

About 60% of respondents who have access to TV indicate that they watch it everyday while about 30% watch it at least once a week. Most people watch TV only in the evenings.

The most commonly watched channels are MRTV and Myawaddy, most likely because they have the highest coverage. In Shan state, respondents mentioned that many people watch Thai channels because they do not understand Myanmar. About half of those who watch TV say they use it to access information on livelihoods. This is often information on weather and advertisements by private companies. In the household survey, only one person among all the respondents who have access to TV indicated that he/she watches the Farmer Channel. Skynet, which is a paid television service, also has an Agriculture Livestock and Forestry Channel but few respondents mentioned having watched the channel as the majority of respondents do not have access to Skynet. Some respondents in focus group discussions mentioned that they obtain information on weather and crop prices from TV. Most people use TV for entertainment and watch dramas or sports.

NEWSPAPERS AND JOURNALS

Access to newspapers and journals in rural areas is very low. This was confirmed in focus group discussions. Only about 15% of survey respondents in Shan, Ayeyawady and Chin have access to newspapers and journals; in Rakhine and Mandalay, access is only about 5%. The Ministry of Information has tried to establish libraries in villages to promote reading and supplies old books and journals for these libraries. However, villages have to provide a building and librarian and most libraries are not functioning. In some areas where there is access to newspapers and journals, these arrive two to three days late. Information on weather is thus of not much use. In one village, respondents noted that they use newspapers to wrap tobacco for smoking!

Among those who have access to newspapers and journals, about three quarters indicate that they obtain livelihood information from them except in Chin state where only about a quarter do so. Less than 10% of those who have access to newspapers and journals read them every day. About half read them at least once a week.

¹⁸ MRTV, MRTV Entertainment, MITV, Hluttaw Channel, NRC Channel, Farmer Channel, Reader Channel, Education Channel, MRTV Sport, MRTV4, 5 Plus, MNTV, Channel 9

The main newspapers read are The New Light of Myanmar, 7 Days, The Mirror, Union and The Voice. However, only a handful of people read each of these journals. Respondents also mentioned a large variety of weekly journals read but again less than five people selected each of the journals listed in the questionnaire. In focus group discussions, respondents mentioned a number of local and regional newspapers in local languages. In Chin state, regional journals include the Chin Land Herald, Chin Voice as well as the Zoaw, Zo Times and Falam Post which are in the local dialect. In Southern Shan state, respondents mentioned the Golden Gong which is issued monthly by the PaO National Organisation.

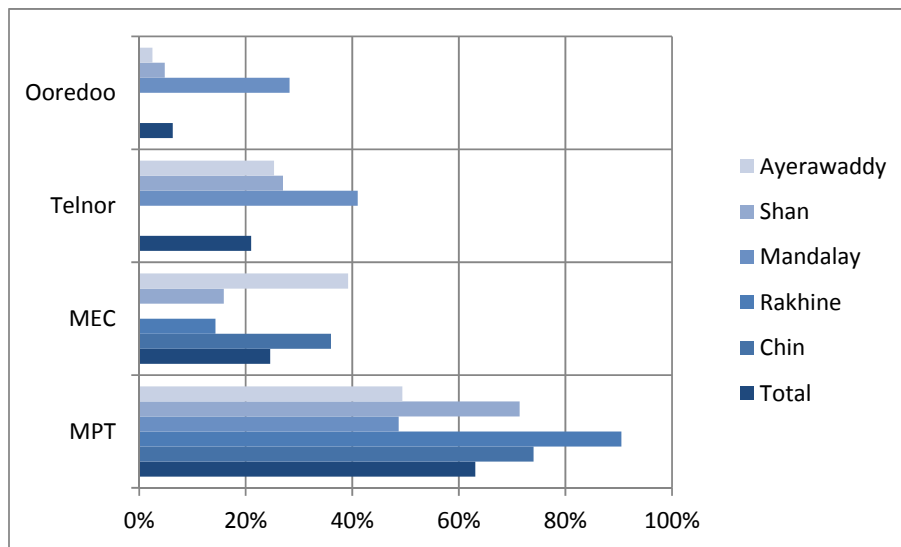
In focus group discussions and key informant interviews, respondents referred to the magazine “*Doe Kyae Ywa*” which means “Our Village” which is a magazine that is published twice a month by the Ministry of Information and distributed by the Information and Public Relations Department to villages. The magazine is targeted to rural villagers and includes information on agriculture and livelihoods. In some areas, the Ministry of Information also produces some local journals on a quarterly basis (e.g. “*Pae Tin Than*” journal in Chin State). The Ministry of Agriculture and Irrigation produces the Agri-Business News and the Ministry of Fisheries produces the Silver Sea journal but there are limited copies for distribution. For example, the township office of the Department of Fisheries only receives 3 copies a month. In Chin state, many religious organisations also publish and distribute newsletters but these are focused on religious issues.

MOBILE PHONE AND SMS

About 50% of respondents in Shan and Ayeyawady indicated that they have access to a mobile phone. This falls to about 30% in Chin and Mandalay and to about 15% in Rakhine. In Chin state, it was noted that many “low income” households can afford to have a mobile phone as a result of remittances received from family members abroad. In addition to the still limited coverage of mobile services, the cost of buying a mobile phone and the need for electricity to charge phones are also other barriers to use of mobile phones.

Most people use MPT as their mobile provider. Other providers are MEC, Telenor and Ooredoo. There is wide variation in which providers are used in the different states/regions (see Figure 35). In Rakhine and Chin states, only MPT and MEC are used. Coverage by Ooredoo is only significant in Mandalay (about 30% of respondents).

Figure 35: Percentage of respondents who use different mobile providers



During focus group discussions, most of the respondents indicated that they currently do not use SMS even if they have a mobile phone. They are not aware of how to send and receive messages. Some respondents said that they rely on their children to do so. In some areas, respondents say they do not use it because they do

not speak Myanmar. Nevertheless, there is an overwhelming willingness to embrace mobile technology and to rely more on it in the future.

While many respondents do not currently use SMS, they use the mobile phone to call traders, friends or family members to obtain the information they need, such as input prices. The example given previously, of how one respondent sent a message with a picture of his crop that had been affected by disease to the Department of Agriculture to get advice on what to do, shows some innovative uses of the technology. Some staff of the General Administration Department (GAD) noted that they are part of a Viber group with other township GAD staff and share information using the app.

Respondents noted that mobile phones have improved social life allowing them to stay in touch with others as well as to make calls during an emergency. One respondent mentioned that he currently pays a monthly fee to receive local and international news by SMS.

When asked if they would be willing to pay to receive livelihoods information by SMS, most respondents in focus group discussions said they would, if the amount was reasonable. It is not clear what is considered “reasonable.” Some respondents however noted that payment should be only once after the harvest.

INTERNET

Overall, less than 10% of respondents have access to the internet. Access is highest in Shan state. No respondents in Rakhine state have access. In Rakhine state, the MPT mobile service coverage is only provided through the CDMA system; GSM services are not yet available. The data on use of internet is thus based on a small sample and should be interpreted with care. Among those who have access to internet, only about 30% use it to obtain information on livelihoods. The majority of users access the internet through their mobile phone. Only a handful of people have their own computer.

As with mobile phones, most people in focus group discussions indicated that they are interested and keen to gain access to the internet even though they do not yet know how to use it. There is however, an issue of a language barrier in some areas and information would have to be made available in local languages and dialects.

FARMERS’ ASSOCIATIONS AND COOPERATIVES

About 60% of respondents indicated that there is a farmers’ group or association in their village. About 35% said that they are a member of a farmers’ group, association or cooperative. Membership was highest in Mandalay (about 60%) and lowest in Rakhine state (about 15%).

About 30% of respondents said that they receive information on livelihoods from a farmers’ group or association. The percentage is lower in Rakhine state (about 15%). Of these, all of them received the information by word of mouth during a meeting or training. None of them received it through a newsletter or phone.

The Agriculture and Farmer Federation of Myanmar is a “democratic trade union” for those in farming and food production. It is working to improve industrial relations, encourage national tripartite dialogue and facilitate social dialogue mechanisms. They conduct seminars and trainings and produce publications for distribution. It has 621 groups at the village level and 72 at the township level. It has more than 100,000 members including about 62,000 members who pay active dues. The village and township groups hold regular meetings. They also conduct training on basic trade union awareness. They note however, that local authorities are still afraid of unions even though the labour organisation law allows them. The central office sends out reports, publications and books to members. They believe mobile and phone communication will become more important but will not be a key source of information for livelihoods.

In some townships, the study conducted interviews with the Chairpersons of the Rice Association, who are themselves rice traders. The associations do not appear to take an active role in providing information to farmers at the township level.

EXTENSION SERVICES

Between 40-60% of respondents in the different states and regions have received livelihoods information from extension workers. The percentage was the same for men and women. Respondents who depend on different types of livelihood sources reported having received training, including casual labourers, farmers, fisher folk, traders and artisans/crafts persons. In focus group discussions, some respondents mentioned that they are not able to attend training provided by different organisations because they do not have the time. This was more frequently mentioned by women who indicated that they need to work in the fields as well as take care of household chores and the children. Extension service providers indicated that poor transportation is a key factor constraining the provision of extension services.

Extension services are being provided by government departments, NGOs as well as private sector companies.

The Department of Agriculture (DOA) at the township level provides extension services to farmers. The DOA conducts trainings, group discussions and demonstration plots on farmers' fields to teach about new agricultural production methods. The extension workers go out two to three times a month to provide extension services. In order to set up a demonstration plot, farmers have to provide the land and fertilizer required. The key informants interviewed noted that the coverage of extension services is low due to limited resources – numbers of extension workers, funds for transportation, information materials for distribution. The DOA uses contact farmers to try to increase their coverage. Most information materials are only in Myanmar although extension workers can usually speak the local language. Nevertheless, there are some language barriers as some local languages have limited vocabulary and it is difficult to explain some words in the local language. Some township officials indicated that adoption of new techniques by farmers is low because of lack of interest, lack of time to attend training and high cost of new techniques.

The Department of Agricultural Mechanisation provides training on tractor maintenance and the Livestock Breeding and Veterinary Department provides trainings and extension services on livestock production methods but on a limited scale. The Myanmar Agriculture Development Bank provides information on credit services but not on other agricultural issues.

In the townships visited, many LIFT partners and other agencies have provided extension services to the rural population. This includes Metta Foundation, GRET, WHH, Better Life Organisation, PACT, Help Age International, Winrock International and International Rescue Committee (IRC). Some partners only provide micro-finance services and so provide information about credit and finance. Most respondents indicated that the trainings provided by NGOs are useful and have helped them to increase their income. They usually adopt



Figure 36: Village information board in Minbya

the techniques introduced and those that cannot attend the training learn from those that have. In Rakhine, IRC establishes Village Information Centers and information boards in the villages where they post information on crop prices, seed distributors, times when fishing is not allowed, nutrition and contact persons. The village respondents however noted that this information is usually old as it is only updated once a month. NGOs also distribute pamphlets and educational materials. Some respondents noted that they would like the opportunity, not only to receive information from NGOs but also to express their feelings to NGOs.

Some large private seed and agro-chemical companies such as Aventine Limited and Ayeyawady Company (under the Awba Group) have extension workers who provide extension services to farmers in the villages to promote their products. Aventine Limited has 300 staff throughout the country who go door to door and to farmers' fields to explain their products. They also conduct farmers' meetings at night in the house of the village leader, library or monastery to explain application methods and effectiveness of different fertilizers and pesticides. During the meetings, they provide a drink, snack and small incentive. A staff member can cover 3 villages a day. In addition, Area Managers and Regional Managers conduct meetings 5-10 times a month reaching 30-60 farmers each time. The coverage of such companies is thus much larger than that of government extension workers and NGOs in their target areas. Some companies also have demonstration plots.

TRADERS, MIDDLEMEN AND SHOPKEEPERS

About 90% of respondents in the household survey get information from traders, middlemen and shopkeepers. In Chin state, this decreases to about 65%, likely because most farmers are subsistence farmers who do not sell their produce. During focus group discussions, most respondents indicate that they contact middlemen and traders for information on prices.

Most of the information from traders is obtained face to face by word of mouth. Only about 5% of respondents stated that they call traders and middlemen by phone to obtain information. In Rakhine state, some respondents stated that they sometimes request boat drivers to enquire about information at the market or town on their behalf.



Figure 37: Fertilizer shop in Shan state

VILLAGE LEADERS

Questions related to village leaders as an information source were not included in the household survey. However, many respondents during focus group discussions stated that they obtain information on livelihoods from village leaders, primarily in relations to information related to credit and land laws. Village leaders go to the township every month for meetings with government officials under the Township General Administration Department and then relay the information back to the villagers. Respondents, particularly those in Chin and Rakhine states also specified village leaders as a preferred channel to receive information from.

F. MAPPING OF CURRENT INFORMATION CHANNELS

A mapping of current information channels available to farmers was conducted first by identifying the information sources mentioned by key informants and by farmers during focus group discussions. Further information about the key channels was then collected through interviews with representatives from the organisations producing these information sources at the township level and at the national level in Yangon. This was supplemented with information from reports on existing studies and media related assessments. Efforts were also made to identify some of the information products that are planned or currently being developed but this list may not be exhaustive.

EXISTING INFORMATION CHANNELS

Table 8 provides a summary of organisations and the channels through which they currently provide information on livelihoods and food security for the rural populations in the study areas. These include governmental, private sector and not-for-profit organisations.

Governmental organisations which are currently producing agricultural and livelihood related information products and channels include:

- departments under agricultural related ministries such as the Ministry of Agriculture and Irrigation and Ministry of Livestock, Fisheries and Rural Development;
- the Information and Public Relations Department and Myanmar Radio and Television (MRTV) of the Ministry of Information;
- the General Administration Department of the Ministry of Home Affairs.

Most government sources face a limitation in resources and have limited coverage although they have an extensive network throughout the country and are present in almost all townships. The quality of services and products produced however, needs to be upgraded to make them more attractive and responsive to the needs of users. Support is needed to develop information channels which are more interactive and allow for two-way communication to also incorporate local knowledge.

Non-governmental organisations which currently produce agricultural and livelihood related information products and channels include:

- Private media outlets – through radio, TV, newspapers and journals;
- Private agro-chemical companies – through advertisements and extension services focusing primarily in high output production regions;
- Traders and middlemen – through direct contact and mobile phones;
- Non-governmental organisations – through training and extension services, pamphlets and information boards;
- Farmers' associations and cooperatives – through word of mouth and farmer group meetings;
- Regional organisations – through newspapers and journals, usually in local languages.

Most of the information services provided by these information channels are free (except Skynet and some journals). However, in some cases, equipment such as a radio or TV is needed to access the information. Also, in some cases, villages have to provide land or other resources for demonstration purposes to receive the extension services.

Specifically on nutrition, LIFT is supporting a project called LEARN (Leveraging Essential Nutrition Actions to Reduce Malnutrition) implemented by Save the Children to support NGOs to implement more nutrition sensitive livelihood programmes. The project has produced some guidance and communication materials to increase knowledge and awareness of nutrition. More information is available from the website <https://myanmar.savethechildren.net/our-consortiums/leveraging-essential-nutrition-actions-reduce-malnutrition-learn>.

Table 8: Mapping of available information sources on livelihoods and food security

Source	Means of providing information and references	Frequency	Coverage	Types of information provided	Attitudes of respondents to information source
Government Sources					
Department of Agriculture, Ministry of Agriculture and Irrigation <ul style="list-style-type: none"> 4 divisions – land use division, seed division, planning division and plant protection division 3 targets – seed production; training and education; research and development 	<ul style="list-style-type: none"> Extension services including training, farmer group meetings, field days, demonstration plots. Set up base points for gatherings and use contact farmers. Sometime conducted in collaboration with NGOs The Agri-business News Training for shopkeepers/ traders on Certificate for Pesticide Application 	<ul style="list-style-type: none"> Trainings about 4-12 times a year depending on region; field days once a year reach 50-100 farmers from 4-5 villages each time; farmer groups meetings 2-3 times a month for 10-15 farmers No information available No information was available 	<ul style="list-style-type: none"> About 60-70% of villages in township Receive 20 copies for whole township 	<ul style="list-style-type: none"> Information on seeds, new planting methods, application of fertilizers and pesticides In Chin state target standard model rice farmers with land near the main road and ability to buy fertilizers 	<ul style="list-style-type: none"> Useful but coverage is low so farmers do not often have contact. Only about 50% of farmers apply the information provided. Transport, weather, availability of budget and teaching facility are barriers to providing better services. Sometimes techniques costly for farmers to implement, e.g. give advice on plant disease but cannot provide pesticides DOA staff also need to improve their own knowledge Lack training materials in local languages. Distribution of journals is weak. Keen interest from farmers to get more information from government extension services
Department of Agricultural Mechanization, Ministry of Agriculture and Irrigation	<ul style="list-style-type: none"> 3 day trainings in tractor stations 	<ul style="list-style-type: none"> 6 trainings per station per year 	<ul style="list-style-type: none"> No information available 	<ul style="list-style-type: none"> How to drive a tractor and maintenance Also loans and sells machinery to farmers individually and in groups 	<ul style="list-style-type: none"> Not referred to by any respondents
Department of Fisheries, Ministry of Livestock, Fisheries and Rural Development	<ul style="list-style-type: none"> Silver Sea Journal 	<ul style="list-style-type: none"> Twice a month 	<ul style="list-style-type: none"> No information available 	<ul style="list-style-type: none"> Fish and prawn cultivation methods, aquaculture management, prices of fish, types of fish 	<ul style="list-style-type: none"> Journal not referred to by any respondents Some respondents noted that fisher folk avoid staff of fishery department because they come to collect tax

Source	Means of providing information and references	Frequency	Coverage	Types of information provided	Attitudes of respondents to information source
Livestock Breeding and Veterinary Department, Ministry of Livestock, Fisheries and Rural Development	<ul style="list-style-type: none"> • Trainings 	<ul style="list-style-type: none"> • 3-4 times per year 	<ul style="list-style-type: none"> • No information available 	<ul style="list-style-type: none"> • Livestock production methods, artificial insemination, nutritious value of feed 	<ul style="list-style-type: none"> • Useful but coverage is very low. • Training not referred to by any respondents. • Keen interest expressed by respondents in Mandalay region for more information on livestock breeding.
Information and Public Relations Department, Ministry of Information <ul style="list-style-type: none"> • Role of township office is information exchange -- collect information to send to central office, and to distribute national newspapers and books and set up libraries to public 	<ul style="list-style-type: none"> • Set up village libraries – villagers have to provide building and librarian and IPRD provides old books and journals • Mobile library/small media corner with discussions • Notice boards at public places such as jetties, hospitals, colleges • “Doe Kyae Ywa” Journal • Regional journals • Distribute digital set-top boxes for TV reception • Conducts trainings in collaboration with other government departments e.g. education, social welfare, anti-narcotics 	<ul style="list-style-type: none"> • Central office distributes books 2-3 times a month • Once a year • No information available • Twice a month • Once 	<ul style="list-style-type: none"> • Programmes cover all villages but village must be able to provide space and librarian so few villages have functioning libraries • Digital set-top boxes distributed only to households with TV 	<ul style="list-style-type: none"> • National and international news; all types of information • Information for rural populations including agriculture • Various topics e.g. drug education, social welfare 	<ul style="list-style-type: none"> • Most villages cannot provide building and librarian; books and journals (including “Doe Kyae Ywa”) often kept in village leaders’ house and not read by most villagers • Most resources in Myanmar language so not useful in ethnic areas • Librarians can help people find books e.g. one person approached library to find book on growing mushrooms and librarian sourced it from the central office – the person is now earning an income from growing mushrooms • Newspapers and journals seldom reach rural areas. IPRD has limited budget for distribution. • There is not much interest among people to read and mobile libraries target schools where there is a captive audience
Myanma Radio and TV (MRTV), Ministry of Information <ul style="list-style-type: none"> • Sub-stations set up in townships for 	<ul style="list-style-type: none"> • Analog system only broadcasts MRTV • Digital system which requires users to have digital set-top box provides access 	<ul style="list-style-type: none"> • 6am to 12 pm daily 	<ul style="list-style-type: none"> • In Rakhine state, only analog system available; 3 sub-stations in Kyaukpyu • Coverage of stations 	<ul style="list-style-type: none"> • National and international news; weather; crop prices; talk shows including on livelihood issues 	<ul style="list-style-type: none"> • Radio is an important source of information where people understand Myanmar but less so in areas where ethnic languages are spoken.

Source	Means of providing information and references	Frequency	Coverage	Types of information provided	Attitudes of respondents to information source
transmission of TV and radio signals	<p>to 14 channels (MRTV, MRTV Entertainment, MITV, Hluttaw Channel, NRC Channel, Farmer Channel, Reader Channel, Education Channel, MRTV Sport, MRTV4, 5 Plus, MNTV, Channel 9)</p> <ul style="list-style-type: none"> • 2 FM radio programmes – MRTV and Pyinsawadi FM • Deutsche Welke Akademie/Myanmar Survey Research study on MRTV Perception Index¹⁹ 		<p>varies – in Kyaukpyu, analog station covers 2.5 miles (30 village)</p> <ul style="list-style-type: none"> • In Labutta, digital station covers 20 miles (400,000 people) • Yangon (urban) and Myitkyina (semi-urban and rural) 	<ul style="list-style-type: none"> • Farmer Channel gets information from DOA, Yezin Agricultural University and Department of Agricultural Research for broadcast. • Assessment of the content and perception of MRTV in comparison with other radio and TV stations 	<ul style="list-style-type: none"> • Radio is important source of information on weather and crop prices. • TV is useful to show how things are done but most villagers lack TV and adequate electricity • However, most people watch radio and TV for entertainment purposes and seldom watch livelihood related programmes such as Farmer Channel
Myanmar Agricultural Development Bank	<ul style="list-style-type: none"> • Advertise availability of loans in newspapers • Also provide info at meetings of General Administration officers at Regional and District levels who transmit it to Administrative officers of township and village/ward levels 	<ul style="list-style-type: none"> • Provide info 3 times a year for seasonal loans – rainy season crop, winter crop and pre-monsoon crop 	<ul style="list-style-type: none"> • No information available 	<ul style="list-style-type: none"> • Type of loans available – seasonal loans for seasonal crops and term loans for machinery and plantation crops • Interest rate (5% per annum), conditions of loan. • Reminders when repayments are due 	<ul style="list-style-type: none"> • Most information about credit from MADB is obtained through village leaders. • Villagers are not managing debt well and borrow from one source to repay another.
Village leaders and Township General Administration Department, Ministry of Home Affairs	<ul style="list-style-type: none"> • Meetings at township level with village tract leaders 	<ul style="list-style-type: none"> • Twice a month 	<ul style="list-style-type: none"> • All townships and village tracts under government control 	<ul style="list-style-type: none"> • Administrative information and new laws e.g. Land Law and land registration • Micro-finance loans from MADB 	<ul style="list-style-type: none"> • Village leaders are important source of information on administrative and legal issues
Non-government sources					
NGOs and CSOs e.g. Metta, IRC, Help Age International, Better Life	<ul style="list-style-type: none"> • Extension services including training, discussion groups, demonstration plots 	<ul style="list-style-type: none"> • Depends on organisation 	<ul style="list-style-type: none"> • Limited to project areas only 	<ul style="list-style-type: none"> • Information on seeds, new planting methods, application of fertilizers 	<ul style="list-style-type: none"> • Quality depends on the organisation; however, most respondents find the

¹⁹ (Myanmar Survey Research, 2015)

Source	Means of providing information and references	Frequency	Coverage	Types of information provided	Attitudes of respondents to information source
Organisation, Arr Yone Oo, Mercy Corps, Proximity Design, Green Peasant Institute	<ul style="list-style-type: none"> Information boards Books, CDs, pamphlets, vinyls Development of mobile apps (Proximity Design, Mercy Corps) 			<ul style="list-style-type: none"> and pesticides Organic farming, reforestation, land law Fisheries and livestock training Credit schemes Nutrition Some market information 	<ul style="list-style-type: none"> information useful and practical. Sometimes they are not able to apply new techniques because of lack of resources; for example, need a lot of labour for some organic methods and contour farming Some areas have limited markets so difficult to increase profits for farmers Some organisation provide snacks/incentives during trainings Some organisations involve monks to gain farmer interest Keen interest to get more information from NGOs
Winrock International	<ul style="list-style-type: none"> Farmer to Farmer training programme (5 year project funded by USAID till 2018) Internews Assessment of Media Landscape in Southern Shan State²⁰ (An assessment on types of media and suitability for reaching different audiences in Southern Shan State) 	<ul style="list-style-type: none"> 24 trainings per year including theory and demonstration One off 	<ul style="list-style-type: none"> 32 townships in Yangon, Ayeyawady, Mandalay, Magway and Southern Shan Five townships in Southern Shan State 	<ul style="list-style-type: none"> Depends on requests of farmers e.g. goat raising, organic farming methods, vegetable and fruit growing, apiculture, aquaculture Existing media outlets, most accessible media for farmers, preferred sources of agricultural information, most effective media for target audiences in Southern Shan State 	<ul style="list-style-type: none"> Seen as an NGO
Food Security Working Group	<ul style="list-style-type: none"> Resource centers with library Knowledge sharing/field practice/exchange events 	<ul style="list-style-type: none"> Open daily 4 times per year 	<ul style="list-style-type: none"> Resource centers in Yangon, Magway, Pyapon, Hakha and Naung Khan (Taunggyi) 	<ul style="list-style-type: none"> Range of livelihood and food security issues, e.g. land use, mushroom growing, organic farming 	<ul style="list-style-type: none"> Not referred to by respondents

²⁰ (Winrock International, March 2015)

Source	Means of providing information and references	Frequency	Coverage	Types of information provided	Attitudes of respondents to information source
	<ul style="list-style-type: none"> hosted by members Farmer meetings at resource centers Policy related consultations Training of trainer courses Distribution of papers, publications, regional newsletter, CDs including to villagers 	<ul style="list-style-type: none"> Monthly for 50-70 famers 10-12 times per year As needed 			
Myanmar Climate Change Watch	<ul style="list-style-type: none"> Weather information on Facebook by Dr. Tun Lwin Interviews by Dr. Tun Lwin on TV, radio, newspapers and CDs 	<ul style="list-style-type: none"> Always online 	<ul style="list-style-type: none"> 5000 friends and almost 30,000 followers 	<ul style="list-style-type: none"> Temperature, moisture, wind, cloud, rainfall, storm, flood. Provides advice from view of disaster, not agriculture. 	<ul style="list-style-type: none"> Respondents feel that the information is accurate and believe in it
Regional organisations	<ul style="list-style-type: none"> Regional newsletters e.g. Golden Gong by PaO National Organisation, Regional Rakhine Government Newsletter, religious newsletters in Chin, Kyar Phyu News (White Tiger News) by Shan National Democratic Party, Managar by Palaung Youth Association, Chin Land Herald, Chin Voice, Zoaw, Zo Times and Falam Post 	<ul style="list-style-type: none"> Depends on newsletter 	<ul style="list-style-type: none"> Depends on newsletter 	<ul style="list-style-type: none"> Regional news including some livelihoods information 	<ul style="list-style-type: none"> Usually in local language so is accessible to local population But usually little information on livelihoods Some young people do not want to read local journals in local language
Private agro-chemical companies e.g. Good Brother Company, Myanmar Awba group of companies, Aventine Limited, Diamond Star Company, Ayeyawady Seed Company	<ul style="list-style-type: none"> Extension services – farmer seminars, field days, trainings, group meetings Target dealers and sub-dealers as well Promotions during market days 	<ul style="list-style-type: none"> Depends on company 	<ul style="list-style-type: none"> Depends on company 	<ul style="list-style-type: none"> Promote products of company e.g. pesticides, fertilizers, seeds, farm machinery 	<ul style="list-style-type: none"> Companies provide information but sometimes information is not suitable to local area and farmers do not get any benefit from use of products Companies target areas that have large growing areas, not small farmers Some farmers reluctant to speak to strangers/ representatives

Source	Means of providing information and references	Frequency	Coverage	Types of information provided	Attitudes of respondents to information source
					from private companies
The Farmer app (developed for Awba with technical support from Mercy Corps and sponsorship of Ooredoo)	<ul style="list-style-type: none"> Mobile application 	<ul style="list-style-type: none"> Online 	<ul style="list-style-type: none"> To be launched nationally in November 	<ul style="list-style-type: none"> Technical information on farming, best practices, latest news Weather updates and commodity prices Agricultural expert advice Send a picture and get advice Discussion forums 	<ul style="list-style-type: none"> Not mentioned by respondents as app has not yet been launched nationally
Agriculture and Farmer Federation of Myanmar	<ul style="list-style-type: none"> Basic trainings on trade union awareness Advanced leadership training Reports, pamphlets, books 	<ul style="list-style-type: none"> Monthly 4 times a year 	<ul style="list-style-type: none"> National 	<ul style="list-style-type: none"> Trade unions Occupational health safety and environment 	<ul style="list-style-type: none"> Farmers associations formed at village level meet every 2 months At township level meet every month Share information among members
World Food Programme, Vulnerability Analysis and Mapping platform (The VAM Shop): www.vam.wfp.org	<ul style="list-style-type: none"> Internet webpages 	<ul style="list-style-type: none"> Online 	<ul style="list-style-type: none"> International 	<ul style="list-style-type: none"> Food security and commodity prices 	<ul style="list-style-type: none"> Targeted to emergency and development organisations Not referred to by respondents
FAO database on agriculture production (FAOSTAT) www.faostat.fao.org	<ul style="list-style-type: none"> Internet webpages 	<ul style="list-style-type: none"> Online 	<ul style="list-style-type: none"> International 	<ul style="list-style-type: none"> Food, nutrition and food security Land use and agricultural inputs Water resources and irrigation Agricultural, fisheries and forestry production 	<ul style="list-style-type: none"> Targeted to development organisations Based on government data Not referred to by respondents
Shwe FM	<ul style="list-style-type: none"> Shwe Agriculture Program 	<ul style="list-style-type: none"> Wednesdays and Fridays 15-20 minute programme in the form of a play 	<ul style="list-style-type: none"> 70% coverage nationally Mostly in central, eastern and southern Myanmar 	<ul style="list-style-type: none"> News on agriculture Weather and storm warnings Crop prices 	<ul style="list-style-type: none"> People listen to radio mostly to obtain information on weather and crop prices, not to listen to livelihood programmes Radio is portable and can be

Source	Means of providing information and references	Frequency	Coverage	Types of information provided	Attitudes of respondents to information source
				<ul style="list-style-type: none"> Advertisements by companies 	carried to the fields
Other radio channels	<ul style="list-style-type: none"> Cherry FM, Bagan FM, Padamyay FM 	<ul style="list-style-type: none"> Depends on channel 	<ul style="list-style-type: none"> Depends on channel 	<ul style="list-style-type: none"> Weather information Crop prices Talk shows on agricultural related issue Advertisements by companies 	<ul style="list-style-type: none"> People listen to radio mostly to obtain information on weather and crop prices, not to listen to livelihood programmes Radio is portable and can be carried to the fields
Skynet	<ul style="list-style-type: none"> Agriculture Livestock and Forestry Channel broadcasting narrative stories, plays, talks, interview Skynet package includes 100 other channels on different themes 	<ul style="list-style-type: none"> 4 hours for 6 times per day from 7am to 7pm 	<ul style="list-style-type: none"> National 	<ul style="list-style-type: none"> Farm machinery, advance farming systems, crop growing techniques, production of fertilizers, use of pesticides, organic farming, soil management, pests and diseases, post-harvest technology, dams, seed banks, food safety, 	<ul style="list-style-type: none"> Few respondents mentioned they have access to Skynet Need satellite dish and receiver box Viewers have to purchase packages paid monthly Most villagers cannot afford to pay for packages and equipment Only in Myanmar language
The Farmer Journal	<ul style="list-style-type: none"> The Farmer Journal – 500 Kyats per copy Also available free on Facebook Some companies who advertise in journal purchase journal and distribute for free to farmers Send articles for broadcast through Bagan FM and Myawaddy Publish compilations and distribute to NGOs and government departments Some companies buy to donate to libraries 	<ul style="list-style-type: none"> Weekly on Monday 	<ul style="list-style-type: none"> Established in 2012. 30,000 to 50,000 copies nationally. 	<ul style="list-style-type: none"> All information related to livelihoods of farmers. Get info on market and crop prices from DOA and commodity centers in Thirimingalar, Bayinthnaung and Aung Ban. Also includes “Talks on Weather Prediction” by Dr. Tun Lwin 	<ul style="list-style-type: none"> In some areas people cannot read because only in Bamar Some respondents refer to it but few newspapers and journals reach the rural areas

EXISTING STUDIES ON MEDIA CHANNELS

The study reviewed a number of media assessments that have already been conducted by other organisations.

Winrock International which is implementing a five year farmer to farmer training programme funded by USAID conducted an assessment²¹ on the types of media available and their suitability for reaching different target audiences in five townships in Southern Shan State, including in two townships covered in this study (Hsihseng and Hopong townships). The findings of the assessment are similar to those of this study. The assessment found that radio and television are the most convenient media channels and very few farmers read print media. Furthermore, the assessment respondents use telephones for communication but mobile internet and telephone messaging are not widely used, except by youth.

Deutsche Welke Akademie which is working with the Ministry of Information to support the transformation of the Myanmar Radio and Television (MRTV) into a public service media has funded an MRTV Perception Index study²² to understand the current content and audience perception of MRTV. The study, conducted by Myanmar Survey Research, found that MRTV is more popular among the rural population but mainly because there is less choice for rural populations. Although it is considered trustworthy and credible (e.g. accurate weather forecasts), the level of trust (as a source of independent news) is not very high as it is considered to favour government due to censorship. It is also perceived as being outdated and not meeting the entertainment needs of the younger generation. The study noted that the National Races Channel (NRC) has followers in the non-Bamar areas but the content and explanation is limited. The study provides detailed analysis of a number of radio and TV channels such as MRTV, MRTV-4, Channel 7 and Myawady.

LIRNEasia and MIDO have collaborated to conduct a nationally representative baseline study on information communication and technology (ICT) needs and usage in Myanmar, with a focus on mobile and internet use. The study found that mobile phone coverage nationally, even in rural areas, is high. About 87% of rural households indicated that there is mobile coverage in their village and 45% of rural households have at least one mobile phone. The most common providers are MPT GSM or MPT CDMA (MEC). Smartphone use in rural areas is much lower with about 55% of mobile phone owners having one. Internet use (through the mobile) is still limited with only 15% using it for calling applications such as Viber and 10% using it for the Facebook application. The main barrier to having a mobile phone is the cost of the handset. The study confirmed that there is a thirst for information of various types but the main source of information for most people currently is friends and family. Most calls are made for social purposes and only about 17% of calls are made for livelihood purposes.

ICT MEDIA

ACCESS IN STUDY AREAS

Table 9 summarizes the access to different media channels by respondents in the household survey.

Access to ICT media (radio, television, mobile phone and internet) is lowest in Rakhine state and highest in Ayeyawady region. Radio is the most common ICT media form available followed by mobile phones. Access to internet is still very low.

Access to mobile phones is highest in Ayeyawady and Shan with 45-55% respondents having access to one. All four mobile providers (MPT, MEC, Ooredoo and Telenor) are present in these two states/regions. However, Ooredoo coverage does not currently extend to Hopong township in Shan state²³. Mobile phone access is lowest in Rakhine where there is only 15% access. Only MPT and MEC networks are available in the three

²¹ (Winrock International, March 2015)

²² (Myanmar Survey Research, 2015)

²³ Information from Ooredoo website www.ooredoo.com.mm. Accessed October 2015.

study townships in Rakhine. Surprisingly, mobile phone access is relatively high in Chin state where there is no network coverage by private mobile providers Ooredoo and Telenor. Also access by respondents in the Mandalay townships is relatively low at about 27% even though there is coverage by more networks. However, the Ooredoo network does not currently cover Mahlaing township in Mandalay²⁴.

None of the respondents in the household survey in Rakhine state have access to internet. Surprisingly, access in the Shan townships is highest at about 10% with access slightly lower in Ayeyawady region. Access in Chin and Mandalay are the same at 3.5%.

Use of radio is significantly lower in ethnic states (Shan, Chin and Rakhine) than in the Myanmar speaking regions. Chin state has the lowest use of radios. Figure 38 shows a map of the coverage of FM and AM radio channels in Myanmar. Townships in Chin and Rakhine have limited access to FM radio stations. In Chin state, there is also an issue of language as many Chin do not understand Myanmar. Myanmar Radio and Thazin Radio have programming in ethnic languages. Cherry FM broadcasts from Taunggyi and there is relatively wide coverage in Shan state with programmes in different ethnic languages including Shan and PaO although programming in PaO is very brief. The study did not identify any other ethnic radio stations.

Use of televisions is low in Rakhine and Chin states. The availability of Thai TV channels likely explains the relatively higher TV access in Shan state in comparison to other ethnic states.

Table 9: Access to communication channels by state/region

	Shan	Ayeyawady	Rakhine	Mandalay	Chin	All study areas
Radio	31.3%	82.6%	36.1%	77.1%	12.5%	47.9%
Television	31.3%	36.1%	18.1%	26.4%	19.4%	26.3%
Mobile phone/ SMS	43.8%	54.9%	14.6%	27.1%	34.7%	35.0%
Internet	9.70%	6.90%	0.00%	3.50%	3.50%	4.7%
Newspapers/ journals	15.30%	13.20%	5.60%	6.90%	14.60%	11.1%

NEW MOBILE APPLICATIONS

A number of NGOs and private companies are in the process of developing mobile applications (commonly known as apps) to provide information to farmers. The Awba company plans to launch an app for android phones in mid-November. The app was developed with technical support from Mercy Corps and allows farmers to access technical and related information such as best practices and latest news on agriculture. Information about the app on the internet²⁵ indicates that it also intends to provide information on weather forecasts and updated commodity prices and to allow farmers to send images and ask questions of experts, for example on plant diseases. Information is provided in Myanmar language. There are no charges for the app but users are charged for internet use. The app is being sponsored by Ooredoo's m Agriculture service.

Proximity International began to develop a mobile app as a pilot two years ago for farmers whom it is directly working with. It is thus not available for the general public. The app provides information on new technology and does not provide information on prices and weather and Proximity is continuing to work on further developing the app. A number of other apps are also being used or developed for the health sector by other organisations such as FHI360 and PU AMI.

²⁴ Information from Ooredoo website www.ooredoo.com.mm. Accessed October 2015.

²⁵ Information from <https://play.google.com/store/apps/details?id=com.eightvillages.android&hl=en>. Accessed October 2015

As most of these apps are currently still in the development stage, they are not known to the respondents in the study areas and were not mentioned in interviews and focus group discussions. They require access to the internet which most respondents do not have.

INTERNET

A number of organisations are compiling information on commodity prices and food security and making them available on the internet. WFP publishes data on food security in Myanmar on its Vulnerability Analysis and Mapping platform, The VAM Shop (www.vam.wfp.org)²⁶. This includes detailed information on monthly food and commodity prices in different parts of the country. However, the information is targeted towards emergency and development organisations working on food security and which have access to the internet, rather than to individuals such as farmers or traders in the agricultural sector.

The FAO database FAOSTAT (www.faostat.fao.org)²⁷ available on the internet also has data on the agricultural sector in Myanmar including information on food, nutrition and food security, land use and agricultural inputs, water resources and irrigation and agricultural, fisheries and forestry production. The information is based on government data at a national level and is not applicable for farmers. The United State Department of Agriculture also publishes international data on agricultural production on the internet (www.ers.usda.org).

PRINT MEDIA

Use of print media by respondents in the household survey is also shown in Table 9. The percentage who read newspapers and journals is lowest in Rakhine and Mandalay region at only about 5% of respondents.

REGIONAL AND ETHNIC PRINT MEDIA

The study identified a number of regional and ethnic print media sources in the study areas, particularly in Shan and Chin states. These journals usually provide general news about the region and sometimes include articles on agriculture and livelihoods. There are a number of newsletters printed by regional ethnic organisations and religious organisations as well as a number of local journals, for example:

- Golden Gong by PaO National Organisation in Southern Shan
- Kyar Phyu News (White Tiger News) by Shan National Democratic Party in Northern Shan
- Managar by Palaung Youth Association in Northern Shan
- Chin Land Herald, Chin Voice, Zoaw, Zo Times and Falam Post in Chin state
- Pae Tin Than in Falam and Pantikhin in Tedim township by Ministry of Information
- Regional Rakhine Government Newsletter in Rakhine
- Yadanapon Daily in Mandalay region

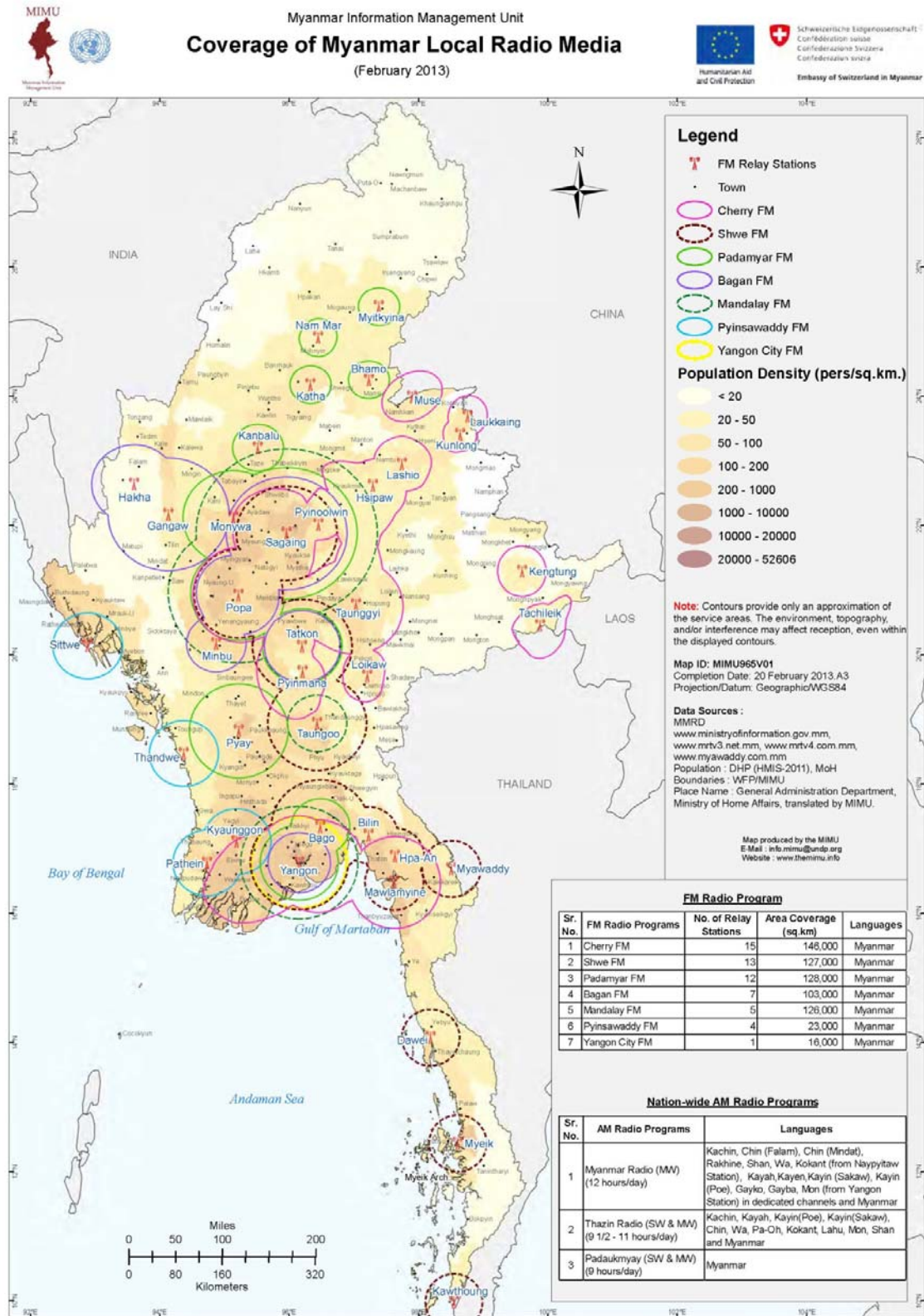
The Winrock study also noted the following regional journals in Shan state -- Shan Herald Tribune, Taunggyi Times, and the PaO language agricultural Shwe Maung Journal. These journals were not mentioned by respondents in the study.

During the study, a number of interviews were conducted with freelance reporters based in the study areas. They reported having covered agricultural related stories and events for journals as well as radio stations. Linking these reporters with agricultural experts or information sources to produce relevant stories for farmers in areas of interest identified in the study would be beneficial in order to increase their effectiveness.

²⁶ (World Food Programme)

²⁷ (FAO)

Figure 38: Coverage of Myanmar Local Radio Media



BROCHURES AND PAMPHLETS

Many of the NGOs and private companies produce brochures and pamphlets on various topics related to the services or products that they support. These are produced in both Myanmar as well as local ethnic languages. The study did not carry out an inventorisation of the brochures or pamphlets that are available in the study townships.

COMMUNITY LIBRARIES



Figure 39: A non-functioning village library

The Information and Public Relations Department (IPRD) of the Ministry of Information has a programme to establish community libraries in villages and townships to promote reading. For example, in Hopong township, the IPRD has established 12 village libraries. The IPRD supplies old books and journals to these libraries but the villages have to provide a building and librarian. For example, the IPRD in Minbya township indicated that they receive books 2-3 times a month from the central office which they distribute to the villages. Distribution however can be a challenge, particularly in

Chin state where transportation is very difficult. In some villages, the library is situated in the village leader's home and the village administrator acts as the librarian. Most appointed librarians are not paid and do not undertake their responsibilities well. As a result, most village libraries are not functioning. The materials provided are only in Myanmar language and the programme thus targets only those who read Myanmar. Most of the libraries are used by young people or students.

In addition to community libraries, the IPRD also runs mobile libraries. The libraries move from village to village staying in each village for a few days. They are often set up in schools and target students. Talks and discussion groups are also conducted as part of the mobile library.

G. SUMMARY OF KEY FINDINGS BY STATES AND REGIONS

This section summarizes the key findings from the different states and regions in the study.

AYEYAWADY REGION

Ayeyawady region has a relatively well developed information and communication network and infrastructure in comparison with other states/regions in the study. The 2014 census showed that about 60% of households owned at least one of six communication means – radio, television, landline phone, mobile phone, computer and internet. Mawlamyinegyun has the poorest access among the three study townships²⁸.

The study found that use of radios is particularly high in Ayeyawady region, at 82% of respondents. Pyinsawadi and Cherry FM radio stations are available in the Ayeyawady study townships in addition to the AM radio channels.

²⁸ A summary of the data on ownership of communication channels in the study townships from the 2014 census is included in Annex 4. Note that the census asked questions on *ownership* of communications equipment while this study asked questions on *access to/use* of the communications channels.

In general, all four mobile service providers in Myanmar -- MPT, MEC, Ooredoo and Telenor – are available in the three study townships in Ayeyawady region but some of the villages visited by the study team did not have access to any mobile coverage. About 55% of respondents in the household survey in the region have access to a mobile phone. Internet access is also relatively high in comparison with other states/regions, although this figure is still very low (about 7% of households).

Literacy rates in Ayeyawady region at 93.8%²⁹ are higher than the national average and most people speak and read Myanmar. Transportation is primarily by boat and boat drivers can be an important intermediary information source.

Farming, casual labour, livestock, fishing and small business are key income sources with paddy as the main crop. Information needs center around these activities with weather, nutrition and credit information being the most important information needs. Information on input markets, commodity markets and production assets are of lower importance.

As a result of cyclone Nargis, there are many NGOs working in the region, including LIFT implementing partners (e.g. Gret, Mercy Corps, Welthungerhilfe, PACT, Proximity) providing a range of services. There are thus opportunities to partner with a number of organisations.

MANDALAY REGION

Mandalay region also has a good communication network and infrastructure with about 70% of households in the study townships owning at least one of the communication means surveyed in the 2014 census (radio, television, landline phone, mobile phone, computer and internet).

As in Ayeyawady region, use of radios is high at 77% of survey respondents. Radio and television were often quoted as key channels of information by respondents in the survey and there are several radio stations that transmit in the region such as Shwe FM, Bagan FM, Cherry FM, Padamyar FM, Myanmar Radio and Thazin radio.

Access to mobiles is not very high at about 27% of households so the current use of apps would be limited. Ooredoo coverage does not currently extend to Mahlaing township³⁰.

Literacy rates are similar to those in Ayeyawady region and Myanmar is the main language used.

Most farmers also rear livestock which is an important secondary source of income for many households. Information on livestock production is thus important in this region. Many households also depend on casual labour as a source of income. Key crops grown are paddy, as well as beans and pulses.

Mandalay has the lowest level of information needs in comparison with other states and regions. In other states and regions, more than 90% of respondents indicated that they need information in all categories of information; in Mandalay, this percentage was above 90% only for nutrition and weather information. Less than 75% of respondents indicated that they need information on technology and innovations, laws and policies, input markets and production assets.

There are few NGOs working in the region and no LIFT projects are currently operational in the study townships.

SHAN STATE

In Shan state, the two townships in Southern Shan state have less access to communication channels in comparison with Kyaukme in Northern Shan. According to the 2014 census date, about 70% of households in

²⁹ 2014 census data

³⁰ Information from Ooredoo website www.ooredoo.com.mm. Accessed October 2015.

Kyaukme have access to at least one communications means surveyed while this drops to about 60% in the other two townships.

Use of radios is lower than in Myanmar speaking regions. Cherry FM, Shwe FM, Myanma Radio and Thazin radio are accessible in the study townships, with some programming in local ethnic languages. Ownership of TVs is relatively high and respondents in Southern Shan state noted that they often access Thai speaking channels from across the border.

Mobile phone access is also relatively high in Shan state at about 45% of households. The Ooredoo network is not yet available in Hopong township³¹.

Literacy rates in Shan state are lowest in the country and there are many different ethnic groups which speak different languages. Surprisingly then, readership of journals and newspapers is highest in Shan state compared to other states/regions in the study. PaO is the main language in the Southern Shan state townships but Kyaukme in Northern Shan has a mix of different ethnic groups. There several local print newsletters and journals produced by a number of regional ethnic organisations and media companies. Markets and festivals featured strongly in focus group discussions as spaces for sharing information. These may provide special opportunities for specific campaigns or events to disseminate information.

Farming is the predominantly main source of income followed by casual labour. Livestock and fishing are not important sources of income. A wide variety of crops are grown with the potential for new types of cash crops to be introduced.

Shan state has the highest information needs in comparison with other states and regions. All respondents (100%) indicated that they need information on nutrition, weather and commodity markets while other categories of information were also selected by more than 95% of respondents.

There are several local NGOs working in Southern Shan state with Metta Foundation as the key organisation providing agricultural and livelihoods services. Winrock International is also working in these townships. In Kyaukme, Cesvi, the key LIFT implementing partner has currently closed its programme and it is not clear if the programme will continue.

RAKHINE STATE

Access to communication in Rakhine state is poor with 2014 census data showing that about 60% of households do not own any of the communications means surveyed.

Radio use by study respondents is comparable to that in Shan state but there is limited coverage by radio stations with access only to MRTV and Thazin, and to Pyinsawadi FM only in Myebon township. There are also limited TV channels (MRTV and Myawady) although a few households have access to satellite service providers such as Skynet and set-top boxes (PSI) which provide access to additional channels.

Mobile phone access is low and both Ooredoo and Telenor are not yet available in the study townships. Only MPT and MEC networks are available.

Literacy is slightly below the national average at 85%³². The study townships include both Rakhine and Chin communities who speak Rakhine and Chin languages respectively.

Most of the people are farmers, casual labourers or fisher folk. As the area is often hit by cyclones, all respondents in the household survey identified information on weather as an important category of information need. Most farmers are subsistence farmers and do not sell their products but fisher folk need to access the markets and thus need to have market price information. Also important are information on nutrition and credit. Of less importance is information on production assets and input markets.

³¹ Information from Ooredoo website www.ooredoo.com.mm. Accessed October 2015.

³² 2014 census data.

The partners in the LIFT project, Tat Lan, are the key organisations working on agriculture and livelihoods in the study townships.

CHIN STATE

Chin state has the poorest communications network and infrastructure. In particular, Tonzang township has very poor access. According to the 2014 census, only 0.6% of households in Tonzang township own a radio, 1% a television and 0.5% a mobile phone. No households have access to internet in their homes. During the study, the study team could not access Tonzang township because of heavy flooding.

Use of radio and television is lowest among the study states/regions. There is no coverage by FM radio stations in the area and most people do not listen to Myanmar radio or watch Myanmar TV because they do not understand the language.

Surprisingly mobile phone access among household respondents is relatively high even though both Ooredoo and Telenor networks are not available in the study townships. Only MPT and MEC networks are available. It was noted during the study that remittances by migrants are often used by households to purchase a mobile phone.

The census data shows a literacy rate of 79.4%. There are many Chin dialects and most of the population do not understand or speak Myanmar. Different Chin dialects are spoken in the three study townships. There are several local Chin journals and newsletters published in the local dialects. External journals arrive very late and are not useful.

The majority of people are subsistence upland agricultural farmers and some farmers also rear livestock. A lower proportion of the people are casual labourers in comparison with other states and regions. The most important categories of information needs are nutrition, weather and technology and innovations. There is less interest in information on production assets and credit, likely reflecting the scale and type of agriculture in the area.

There are a few NGOs working in Chin state and Gret is a key partner in the region. However, they do not have a LIFT funded project in Tedim and Tonzang townships.

IV. KEY INFORMATION GAPS AND PREFERRED CHANNELS OF COMMUNICATION

The following section seeks to identify the information gaps and preferred channels of communication based on the information needs, existing information channels identified in the study and respondents preferences.

A. KEY INFORMATION GAPS

In general, there is a need for information in all areas covered in this study. This reflects the current state of agriculture in Myanmar with low knowledge levels and a dearth of information available readily in the rural areas. Efforts to extend information in all areas explored in this study would be welcomed by the target populations. However, the exact information provided must differ from one area to another and be adapted to each region based on the types of crops, weather conditions and interest of the farmers in the area to adopt new technologies. The information will also need to be provided in different languages in different areas.

UNESCO, however, will not be able to respond to all the needs of all farmers and will thus need to identify key priorities for their interventions. Further analysis of the information needs within each information category provides a more detailed analysis of information gaps. Table 10 shows the top 20 most important types of information needed as identified in the household survey, as well as where such information is currently available in the villages. Information on rainfall and weather conditions is readily available from radio and TV in many areas except in the ethnic states where access to radio and TV are low. There are also substantial NGO programmes providing information on new methods and inputs and on credit sources and costs in the target areas. The sources of information for the other types of information are very limited and there is a need to expand the sources and efficiency of delivering such information. Types of information with a high information gap are:

- information on nutrition (healthy foods, nutritious value of foods, diversified foods and diet, how to prepare nutritious foods and prices of nutritious foods);
- information on mitigating the effects of weather (effect of weather on crop production, soil degradation and soil conservation and how to mitigate weather changes);
- information on laws (land laws and policies and fertilizer and pesticide laws);
- information on the quality of agricultural inputs; and
- information on the cost of casual labour.

B. ANALYSIS OF PREFERRED COMMUNICATION CHANNELS

Table 10 also shows the preferred sources of information for each of the information categories as expressed by respondents in the household survey.

Friends and family are the main preferred communication channels for most types of information. NGOs and government extension workers are also key sources. This indicates a high preference for interpersonal communication methods.

As literacy is not high in many of the targeted areas, written materials are of low interest to most farmers. Newspapers and journals do not reach the rural areas but may serve the purpose of township level groups such as local traders, journalists and extension workers who may in turn provide such information to the farmers. These materials are thus useful for the “middle level information providers”.

While many people listen to radio for weather information and input prices, there is not much interest in receiving other livelihoods related information from the radio. Television is not reaching the rural populations due to the lack of equipment and poor transmission. These formats thus have limited use in reaching the people in the target areas beyond information on weather and input prices.

Table 10: Most important types of information needed and current available sources of information (shaded rows are areas where the information gap is high)

Rank	Type of information	Available sources of information	Information gap	Preferred channels for receiving such information	Target audience
1	Rainfall	Radio, television	High in ethnic areas where radio coverage is low	Radio, friends and family, television, government extension workers	Farmers, fisher folk
2	Healthy foods	Some government extension workers, NGOs	High	Government extension workers, NGOs	All rural populations
3	Effect of weather on crop production	Limited	High	Radio, friends and family, television, government extension workers	Farmers, extension workers
4	Soil degradation and soil conservation	Limited	High	Radio, friends and family, television, government extension workers	Farmers, extension workers
5	Temperature, sunshine and other weather conditions	Radio, television	High in ethnic areas where radio coverage is low	Radio, friends and family, television, government extension workers	Farmers, fisher folk
6	How to mitigate weather changes	Limited	High	Government extension workers, NGOs	
7	Nutritious benefits of food	Some government extension workers, NGOs	High	Government extension workers, NGOs, friends and family	All rural populations
8	Balanced and diversified diet	Some government extension workers, NGOs	High	Government extension workers, NGOs, friends and family	All rural populations
9	How to prepare nutritious food	Some government extension workers, NGOs	High	Government extension workers, NGOs, friends and family	All rural populations
10	Prices of nutritious food	Some government extension workers, NGOs	High	Government extension workers, NGOs, friends and family	All rural populations
11	Where to get credit	NGOs providing credit, Village leaders	Medium	NGOs, friends and family, government extension workers, village leaders, companies	Farmers, extension workers
12	Land laws and policies	Very limited	High	Govt extension workers, NGOs, village leaders, radio	Farmers, extension workers
13	Interest rates and other costs of credit	NGOs providing credit, Village leaders,	Medium	NGOs, friends and family, government extension workers, village leaders, companies	Farmers, casual labourers, family members
14	New farming/ fishing methods	NGOs, government extension workers	Medium	NGOs, government extension workers, friends and family	Farmers, fisher folk, extension workers
15	New types of seeds/cuttings	NGOs, government extension workers	Medium	NGOs, government extension workers, friends and family	Farmers, traders, extension workers
16	Quality of agricultural inputs	Some traders	High for trusted sources	Friends and family, NGOs, government extension workers, traders	Farmers, traders, extension workers
17	Cost of casual labour	Very limited	High	NGOs, farmers' associations	Farmers, casual labourers
18	Technique used to apply inputs	Some traders	Medium	Friends and family, NGOs, government extension workers, traders	Farmers, traders, extension workers
19	New fertilizers/ pesticides	NGOs, government extension workers	Medium	NGOs, government extension workers	Farmers, traders, extension workers
20	Fertilizer and pesticides laws and policies	Very limited	High	Government extension workers, NGOs, village leaders, radio	Farmers, traders, extension workers

Access to SMS and internet is still very limited and thus is not currently a useful means to reach most people in the rural area. In many other countries, the use of new information communication technologies (ICT) has been shown to be useful for farmers. A study of data from 1995 to 2000 in 81 countries showed that new ICT has a significantly positive impact on agricultural productivity, including in developing countries³³. The study also showed, however, that adoption of ICT as well as the returns from ICT are higher in richer countries than poorer countries. There is thus “credible evidence of positive impact”³⁴ but questions remain on **how** ICTs support agricultural production and **under what conditions**. Empowering poor farmers and harnessing the effectiveness of ICTs will require “a complex set of policy, investment, innovation, and capacity-building measures, in concert with beneficiaries and other partners, which will encourage the growth of locally appropriate, affordable, and sustainable ICT infrastructure, tools, applications, and services for the rural economy.”³⁵

Mobile phone applications, in particular have shown strong potential to increase productivity. A number of NGOs and private companies in Myanmar are in the process of developing some apps to disseminate information to farmers. However, in many areas in Myanmar, the context is not yet conducive for using such technology on a large scale. Only very few households have access to smartphones which are needed to use apps and internet coverage is still limited. As many households have access to simple keypad mobile phones and the rate of expansion of the mobile network is high and will remain high for the coming years, there is a potential to expand the use of SMS as a vehicle for transmission of information. The use of mobile SMS information platforms where farmers receive SMS alert messages and mobile farmer helplines where farmers can call agricultural experts for advice have been shown to increase access to real-time information and support³⁶. To make them viable, the cost of such services must be considered. In focus group discussions, most respondents indicated that they would be willing to pay to receive livelihoods information but that this should be affordable and be a one-off payment after harvest. Some key informants felt that farmers would not be willing to pay to receive information.

Low levels of literacy however limit the use of SMS and some form of support on how to use SMS is needed if these methods are to be introduced in the study areas. Younger family members can play an important role in this. Furthermore, “middle level information providers” as described below could be nodes for further dissemination of the information. Awareness of SMS use could also be raised through radio and TV.

The use of internet will increase in the longer future and the use of applications will increase. Application development and testing and piloting should be done at this moment but introduction on a larger scale needs to wait until the environment is more conducive.

In developing the use of SMS and internet, it will be important to ensure that messages and apps are also provided in local ethnic languages in addition to Myanmar to ensure that ethnic populations are not left out further deepening the divide and inequality between groups. To enable this, there is a need for mobile telephone companies to also develop the capability and use of standardised Unicode fonts required for the local ethnic languages. It is also important to ensure that the information provided through such channels also reach women who currently have lower access to new ICT.

Due to the heavy reliance of people on the informal network of friends and family, the idea of using “nodes” to “infiltrate” the informal network and act as “information distributors” may be explored. The system of “information distributors” is already functioning in some villages where village leaders disseminate information received from the township level through these information distributors. These “information distributors” could be from existing trusted sources such as NGOs and government extension workers, local journalists and reporters as well as key influencers in the community such as religious leaders.

³³ (Lio & Liu, 2006)

³⁴ (The World Bank Group, 2012)

³⁵ (The World Bank Group, 2012)

³⁶ (Vodafone, 2011)

Telephone access (including both landline and mobile phone access) is higher and could be an important means for two way communication and information on demand. While this has not yet been developed in Myanmar, helplines and call centers have been introduced in other countries with relative success. The call centers, possibly linked to radio shows, could be located within the Ministry of Information, Ministry of Agriculture and Irrigation or within NGOs and should be operated by people who can speak the local languages.

Although farmers' associations and cooperatives were not identified as a preferred channel by many respondents, the data shows that respondents consider information from farmers' associations and cooperatives to be highly reliable, practical and easy to understand. About 60% of respondents say that there is a farmer association or cooperative in their village and these organisations may be used as a means to share knowledge among rural populations themselves based on their own experiences. Many such organisations hold regular meetings and these are good forums to share information. National associations however do not seem to be key sources of information and the potential to tap these national associations to share information to local associations should be explored.

V. RECOMMENDATIONS

The following recommendations are based on an analysis of the key information gaps and preferred channels of communication and seek to provide suggestions for initiatives that may be developed by UNESCO in its project.

1. Information on **rainfall and other weather conditions** are of high priority for rural populations due to the key effect of weather on their livelihoods. Basic daily weather forecasts are currently available from radio and television, with radio being the main source of such information for rural populations. In the ethnic states, such as Rakhine and Chin states, however, access to radio is low because of the language barrier. Other options to provide such information such as development of **local radio channels** in local languages or **SMS service through “information distributors”** could be developed. The recent Broadcast Law that has been passed allows the development of local community radio stations and these could be supported to promote broader information exchange in local areas.
2. Information on **nutrition** is also a key gap with very few organisations providing such information as nutrition is often overlooked in interventions related to livelihoods and food security. This information may be provided by **NGO extension services as well as government services**. Further research should be carried out to understand information needs in this area. UNESCO may seek collaboration with other actors such as the Ministry of Health, UNICEF, World Food Programme, FAO and other nutrition initiatives (e.g. Scaling-Up Nutrition initiative) and with specific LIFT implementing partners to develop communication initiatives linked to specific nutritional objectives of the partners' projects.
3. While information on daily weather conditions is available from radio, TV or newspapers, there is little information on **how the weather conditions affect production and how to mitigate against different weather conditions**, which are also important for farmers. Information on how to respond to weather conditions could be developed for distribution through **extension services provided by NGOs and government departments as well as the “information distributors”**. For example, information packages for how to manage drought could be developed if such conditions are predicted for the season.
4. Information on where to get **credit and interest rates and costs of credit** also ranked highly with few information sources providing such information widely. Most villagers currently receive information on loans from their **village leaders and NGOs which offer micro-credit services** and these should continue to be key sources of information. However, caution should be taken not to promote high levels of borrowing and indebtedness as many farmers already have high levels of debt. Information should thus also be provided on how to **manage debt**.
5. Farmers need to have information about the relevant laws particularly the **land law and fertilizer and pesticide law**. In particular knowledge about how to secure the Land Use Certificate Form -7 is crucial for them in order to be able to secure their use of the land they cultivate and ability to obtain a loan from the MADB. Although village leaders provide this information, this is very limited. There is a strong interest to receive such information from government extension workers but this needs to be done in a user friendly supportive manner. In addition to provision of information through extension workers and radio, it may be useful to provide such support through a **helpline or call center** where advice can be provided to the individual based on his/her own circumstances.
6. Information on prices of inputs and commodities did not rank among the top 20 types of information needed. Such information is currently available from a variety of sources including radio, TV and newspaper and journals, as well as from traders and middlemen. However, information on the **quality of inputs and techniques to apply inputs** did rank among the top 20 types of information needed. Some information on this is currently available from traders but there is an interest to get such information from **NGOs and government extension workers**.
7. There is a strong interest for information on **new farming methods, new seeds and new fertilizers/pesticides** from **NGOs and government extension workers**. Most farmers however, are risk averse, and will not use new methods and inputs until they have been demonstrated to have an impact. It

is thus important to create opportunities for farmers to share such information among themselves in order to promote such methods. This can be done through discussion forums and events organised by **farmers' associations and cooperatives**.

8. There is currently very little information being provided on the **cost of casual labour**. This information is useful to both farmers who hire casual labour as well as the casual labourers themselves. As there is not an established "market" for casual labour and the cost varies significantly between areas, such information is best provided by local sources such as **farmers' associations and cooperatives**.
9. The analysis of the top 20 types of information required does not include information related to **fishing and livestock breeding** as fisher folk and livestock breeders form a smaller percentage of the respondents. However, in areas where fishing and livestock breeding are important sources of livelihood -- Ayeyawady and Rakhine for fishing and Mandalay for livestock breeding -- it is important to also provide information on techniques related to these activities. Such information is best provided through **NGOs and government extension workers** as well as **farmers' associations and cooperatives**.

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VII. ANNEXES

Rapid Assessment of Community Information Needs for Sustainable Livelihoods and Food Security Household Assessment Instrument

Read this statement to the respondent before the interview.

My name is _____ and I am working on behalf of UNESCO and LIFT. We would like to invite your household to participate in an information needs assessment that is looking at the information needs of rural households living in Rakhine, Shan, Chin, Ayeyawady and Mandalay State/Regions. The assessment is conducted by DantDaLun Management and Consulting Services on behalf of UNESCO in collaboration with the Ministry of Information. Taking part in this survey is totally your choice. You can decide to not participate, or if you do participate you can stop taking part in this survey at any time for any reason. If you stop being in this survey, it will not have any negative effects on how you or your household is treated or what assistance you receive. If you agree to participate, we will ask you some questions about your family and your livelihood situation. Be assured that any information that you will provide will be kept strictly confidential. Your name will not be recorded in our database and will not be shared with anybody or any party. You can ask me any questions that you have about this survey before you decide to participate or not. Thank you.

If the respondent does not give consent, thank them and move on to the next household.

Section 1 - GENERAL INFORMATION			
Village name			
Village tract name			
Township name			
State/Division			
Name of enumerator			
Date of interview			
Start Time: _____	Time Completed: _____		
Name of data supervisor		Checked 1=Yes, 2=No	[]
Name of head of HH selected from the village HH list			

"For all the questions that can be circled, please circle ○ the answer"

Section 2 - RESPONDENT INFORMATION - Record the following information concerning the respondent:			
Respondent's name			
2.0 Position in household (only head of household or spouse can be used as respondents)	1=Head 2=Spouse	[]	
Note: the <i>head of household</i> has to be a living member of the household and is determined by the household members themselves (the head of the household can be female)			
2.1 Sex	1=Male 2=Female	[]	

2.2	What is your Ethnicity?	Bamar =1	Kayin = 2	Kayah =3	Shan =4	Chin =5	PaO =6	Kachin =7	Rakhine =8	Other ethnic (specify).....	
2.3	What is your religion?	Buddhist =1		Animist =2	Christian =3		Hindu =4	Muslim =5	Other		
2.4	How would you describe your occupation?	Farmer Alone = 1	Casual Laborer = 2	Business = 3	Farmer + Livestock = 4		Crafts Person = 5	Fisher Folk = 6	Skilled wage earner =7	Other	
2.5	What age are you? Specify age in years. If specific age not known, round to the nearest 5 years upwards.							Age in years		[]	
2.6	What is your marital status?	Single = 1	Married = 2	Widowed = 3		Separated /Divorced = 4		Other.....			
2.7	What was the highest level of school you attended?	No schooling = 1	Primary school =2	Secondary School =3		Higher/University = 4		Other			
2.8	What was the highest standard that you achieved at that level? If less than Standard 1, enter "00". If higher than Standard 10, enter "99"							Standard		[]	
MYANMAR LANGUAGE SKILLS											
2.9	Can you read: The sky is blue							1=yes 2=no			
2.10	Can you write: I live in Singu Township, Mandalay Region							1=yes 2=no			

SECTION 3: DEMOGRAPHY

Numbers of individuals	Age of family members										TOTAL		
	0-5		6 - 9 years		10-16 year		17-60 year		>60 year		M	F	
	M	F	M	F	M	F	M	F	M	F			
3.1	How many People normally live in this house on a permanent basis (including respondent)?												

SECTION 4: ACCESS TO SERVICES

4.1	How far do you live from the main road? (An Estimation is fine)	Miles.....	[]
4.2	How far do you live from the nearest market town?	Miles.....	[]
4.3	How many HRC sub-centre (public & private) are there within 5 miles from your house?	Unit.....	[]
4.4	How many schools (for students aged 5 to 14) are there in your village?	Unit.....	[]
4.5	Does your village have a farmer group or farmer organization/association?	1=yes 2=no	

SECTION 5: LIVELIHOOD ACTIVITY

Indicate **the four** most important livelihood activities for your household in the last year. The most important should be that which provides the most income.

	Income Code		Income Code
5.1 Main (First)	[]	5.3 Third	[]
5.2 Second	[]	5.4 Fourth	[]

Income Activity Codes:	7 = Small trade/petty trade/ shopkeeper 8 = Artisanal/Wood/Crafts/Mason/Carpenter 9 = Logistics and transport 10 = Migration/ Remittance 11 = Livestock Breeding/Selling 12 = Money Lender 13 = Soldiering	14 = Selling non-timber forest products (orchids, resin.....) 15 = Others, Specify _____
5.5	Is there anybody that belongs to your household that is not currently staying in your household because he/she is working somewhere else (but still contributes to the household income)?	1=yes 2=no, Go to 5.7

5.6	How many adults work outside the household and village for more than 1 month every year?	Adults ____
5.7	Did your household hire workers to assist you with rice farming, fishing or as household labor in the past 12 months?	1=yes 2=no
5.8	Did any members of your household work as casual labor in the past 12 months (note: casual labor usually spends nights in the house)	1=yes 2=no

SECTION 6: ACCESS TO AGRICULTURAL LAND					
6.1	Does your household or any of its members own land? Ownership should be considered broadly to include cases where land is formally titled and registered in one or more household member's name; land that has been purchased, transferred or inherited but not formally titled (or if titled not registered in the household's name); land leased from government; and, land where the household believes it has an established right (formal or informal) to use the land, a right that is generally recognized by the community.			1. Yes 2. No, <i>Go to 6.4</i>	
6.2	If yes, What is the total area of land that your household owns?			Acre..... Don't know = 99	____
6.3	What area of your household's own land is your HH cultivating at present?			Acre..... Don't know = 99	____
6.4	Do you cultivate land that you do not own?			1. Yes 2. No, <i>Go to 7</i>	
6.5	What is the total area of land that you cultivate?			Acre..... Don't know = 99	____
6.6	How do you describe the land that you own or are currently cultivating?	Irrigated land = 1	Rain-fed permanent = 2	Rain-fed Rotational = 3	Mixed=4

SECTION 7: HOUSEHOLD CROP PRODUCTION		
7.1	Did your household grow crops in the current monsoon season?	1. Yes 2. No <i>Go to 7.5</i>
7.2	What was the main crop your household grows in the monsoon season? (USE BELOW CODES or specify other.....)	____
7.3	Did your household grow any other crops in the monsoon besides the main crop	1. Yes 2. No
7.4	What other crops did your household produce in the monsoon besides the major crop (pick from the list)	____
7.5	Did your household grow any other crops before this monsoon season (in the winter or summer season)?	1. Yes 2. No
7.6	What was the main crop your household produced before this monsoon season? (USE BELOW CODES or specify other.....)	____

CROP CODES						
Cereal crop/ Roots/ Tubers	Industrial crop	Oil seed crop	Pulses		Vegetable / Aromatic crop	
1=Paddy	10 = Tobacco	15= Peanut	20= Green Gram	29= Soya Bean	36= Onion	45= Watermelon
2=Corn / Maize	11= Sugar Cane	16= Sesame	21= Black Gram	30= Pelun	37 = Garlic	46= Mustard Leaf
3= Wheat	12=Cotton	17= Mustard	22= Chick Pea	31= Rice Bean	38 =Chilli	47= Cabbage
4= Millet / Sorghum	13= Rubber	18= Sunflower	23= Pigeon Pea	32= Duffin Bean	39 = Ginger/ Tumeric	48= Cauliflower
5= Potato	14= Other Ind. crop	19= Other Oil Seed	24= Butter Bean	33= Lablab Bean	40 = Gourd	49= Kailan
6 = Sweet Potato			25= Cow Pea	34=Long Bean	41 = Tomato	50= Pumpkin
7= Cassava/Yam			26= Suntapya	35= Other	42 =	51=

				Pulse Crop	Egg Plant	Drumstick
8= Other cereal crop			27= Suntani		43= Cucumber	52= Other (Specify).....
9 = Elephant Foot Yam			28 = Beetle Nut		44= Roselle	

SECTION 8: HOUSEHOLD MARKETING

8.1	Did your household sell any crops during the last 12 months?	1=yes 2=no go to next section	[]
8.2	What was the main crop your household sold during the past 12 months	USE ABOVE CROP CODES	[]
8.3	Did your household sell your main crop alone or did you sell with other farmers?	1 = Sold alone only 2 = Sold in group only 3 = Sold alone and in group	[]
8.4	Were you able to access information on prices for the main crop before you sold it?	1=yes 2=no	[]
8.5	If you were able to access information on prices, where did you get this information from? (NOTE do not read options. Multiple answers are possible, please circle <input type="radio"/> the right answers)	1 = Radio/TV 2 = Newspaper/weekly Journal 3 =Mobile phone/internet 4 =Friends/Family 5 = Farmer association/cooperative 6 = NGO/other organization 7 = Trader 8 = Other: _____	
8.6	Did you know the price for your main crop at the nearest market town at the time of sale?	1 =Yes 2 = No	[]
8.7	If you knew the price at the market town, was the price higher, same or lower than the price that you would get selling at your village?	1 = higher 2 = same 3 = lower	[]
8.8	Where did you sell your main crop?	1 = own village 2 = village tract 3 = market town	[]

SECTION 9: AGRICULTURE AND LIVELIHOODS INFORMATION

In the section below we would like to collect information on various topics which are considered important for rural peoples (farmers, fishing folks and landless). We have included 10 separate topic areas. Each Topic area is numbered and has a number of questions. For each topic area, we would like to know what are the most important information needs, how do people currently receive information, through what information source (TV, radio, newspaper, telephone etc.) are they receiving such information and whether they are interested in receiving this type of information in the future. These questions are also asked in relation to different seasons of the year, as it may be important for rural people to have different types of information at different times of the year or throughout the entire year.

9.1 Production Assets

These questions are about production assets, those items or resources that have economic value that an individual, a corporation or organization owns or controls with the expectation that it will provide future benefits. This can include (property, land, a fishing boat and a power tiller, a hand tractor, fishing nets or a storage facility). These are not items which have to be regularly replenished like fertilizer or pesticide.

What type of information do you need regarding your production assets	Importance			
	0=not needed	1=not so important	2=important	3=very important
9.1.1 The purchase or sales price of production assets, such as land or a power tiller?	0=not needed	1=not so important	2=important	3=very important
9.1.2 Information on how to use, repair or maintain (a tractor, or land etc.)	0=not needed	1=not so important	2=important	3=very important
9.1.3 Information about bargains or rental and leasing opportunities and costs.	0=not needed	1=not so important	2=important	3=very important
9.1.4 Information on related costs such as fuel costs, electrical costs, equipment and add-ons?	0=not needed	1=not so important	2=important	3=very important

9.1.5 Information about suppliers, retailers, brokers, traders, second hand assets?	0=not needed	1=not so important	2=important	3=very important
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9.1.6 Do you receive any information on production assets?	1 =Yes 2 = No <i>If no skip to 9.1.8</i>			
How are you currently receiving information on production assets (land, fishing boats, power tillers, hand tractors) (use the codes from list 1)	(Rank the 3 most important by level of importance)			
9.1.7 Can you list relevant channels from where you obtain information on production assets	1 = Main _____	2= Second _____	3= Third _____	

How would you want to receive information on productive assets (land, fishing boats, power tillers, hand tractors) in the future (use the codes from list 1)	(Rank the 3 most important by level of importance)			
9.1.8 Can you list relevant channels for information on production assets that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____	

List 1: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.2 Commodity markets

This question relates to commodities or crops that are being produced and then sold at a market and could include (paddy, beans, fish, chicken, buffalo, sesame or potatoes)

What type of information do you need regarding your commodity markets	Importance			
9.2.1 The farm and market sales price of commodities or crops.	0=not needed	1=not so important	2=important	3=very important
9.2.2 Information about transportation costs related to transporting commodities or crops to markets.	0=not needed	1=not so important	2=important	3=very important
9.2.3 Information on the price of a commodity in relations to a difference in quality.	0=not needed	1=not so important	2=important	3=very important
9.2.4 Information about the sale of commodities via bulk or collective selling.	0=not needed	1=not so important	2=important	3=very important

9.2.5 Do you receive any information on commodity markets?	1 =Yes 2 = No <i>If no skip to 9.2.7</i>			
How are you currently receiving information on commodity markets ?	(Rank the most important by level of importance)			
9.2.6 Can you list relevant channels from where you obtain information on commodity markets (use the codes from list below)	1 = Main _____	2= Second _____	3= Third _____	

How would you want to receive information on commodity markets in the future ?	(Rank the most important by level of importance)			
9.2.7 Can you list relevant channels for information on commodity markets that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____	

9.2.8 Could you please indicate the months of the				
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year that your information needs are highest regarding commodity market? (Please mention all the months of highest information needs).	1 = January	[]
	2 = February	[]
	3 = March	[]
	4 = April	[]
	5 = May	[]
	6 = June	[]
	7 = July	[]
	8 = August	[]
	9 = September	[]
	10 = October	[]
	11 = November	[]
	12 = December	[]

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.3 Casual Labor Markets

The following questions are in relations to the demand and supply of casual and daily labor that are available in the market in Rural Areas.

What type of information do you need regarding the casual labor markets	Importance			
	0=not needed	1=not so important	2=important	3=very important
9.3.1 Information on the cost of casual labor	0=not needed	1=not so important	2=important	3=very important
9.3.2 Information on where to find casual labor	0=not needed	1=not so important	2=important	3=very important
9.3.3 Information on the capacity of casual labor	0=not needed	1=not so important	2=important	3=very important
9.3.4 Information on the time availability of casual labor	0=not needed	1=not so important	2=important	3=very important
9.3.5 Information on work conditions	0=not needed	1=not so important	2=important	3=very important

9.3.6 Do you receive any information on labor markets?	1 =Yes 2 = No <i>If no skip to 9.3.8</i>		
How are you currently receiving information on casual labor market ?	(Rank the most important by level of importance)		
9.3.7 Can you list relevant channels from where you obtain information on labor market (use the codes from list below)	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on labor market in the future?	(Rank the most important by level of importance)		
9.3.8 Can you list relevant channels for information on labor market that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____

9.3.9 Could you please indicate what are the months during the year that you are in need of information regarding labor markets? (Please mention all the		
	1 = January	[]

months of highest need).	2 = February	[]
	3 = March	[]
	4 = April	[]
	5= May	[]
	6 = June	[]
	7 = July	[]
	8 = August	[]
	9 = September	[]
	10 = October	[]
	11 = November	[]
12 = December	[]	

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.4 Technology and innovations

This question is about technology and innovations (what are new types of technology such as new nets, new type of tractors, new cultivation techniques) and also relate to new ideas, devices or methods of doing things.

What type of information do you need regarding technology and innovation?	Importance			
	0=not needed	1=not so important	2=important	3=very important
9.4.1 Are you interested in information about new types of seeds and planting (cuttings) material	0=not needed	1=not so important	2=important	3=very important
9.4.2 Are you interested in information about new types of fertilizer and pesticides	0=not needed	1=not so important	2=important	3=very important
9.4.3 Are you interested in information about new types of machinery like ploughs, tractors, fishing boats, nets	0=not needed	1=not so important	2=important	3=very important
9.4.4 Are you interested in information about new planting techniques and new methods of farming or fishing	0=not needed	1=not so important	2=important	3=very important

9.4.5 Do you receive any information on technology and innovation?	1 =Yes 2 = No <i>If no skip to 9.4.7</i>		
How are you currently receiving information on technology and innovation?	(Rank the most important by level of importance)		
9.4.6 Can you list relevant channels from where you obtain information on technology and innovation (use the codes from list below)	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on technology and innovation in the future	(Rank the most important by level of importance)		
9.4.7 Can you list relevant channels for information on technology and innovation that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.5 Training and extensions

These question are about training and extensions (both public and private sources that are considered external support that provide knowledge and technical support from agencies like the DOA, private companies and NGOs)

What type of information do you need regarding your training and extension	Importance			
	0=not needed	1=not so important	2=important	3=very important
9.5.1 Information on where to find training or extension	0=not needed	1=not so important	2=important	3=very important
9.5.2 Information on the costs of training and extension	0=not needed	1=not so important	2=important	3=very important
9.5.3 Information on who provides training and extension services	0=not needed	1=not so important	2=important	3=very important
9.5.4 Information on what types of training are being offered	0=not needed	1=not so important	2=important	3=very important
9.5.6 Information on when training and extension services are being offered	0=not needed	1=not so important	2=important	3=very important

9.5.7 Do you receive any information on training and extension?	1 =Yes 2 = No <i>If no skip to 9.5.9</i>		
How are you currently receiving information on training and extension (use the codes from list below)	(Rank the most important by level of importance)		
9.5.8 Can you list relevant channels from where you obtain information on training and extension	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on training and extension in the future (use the codes from list below)	(Rank the most important by level of importance)		
9.5.9 Can you list relevant channels for information on training and extension that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____

List: Codes for information channels

1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.6 Nutrition

This question about nutrition encompasses many things nutrition can be interpreted as the interaction of nutrients and other substances in relation to maintenance, growth, reproduction, health and disease within human beings. In our case nutrition implies a healthy or nutritious food, a balanced diet and a diversified diet made up of different foods and vegetables.

What type of information do you need regarding nutrition	Importance			
	0=not needed	1=not so important	2=important	3=very important
9.6.1 Information on healthy foods	0=not needed	1=not so important	2=important	3=very important
9.6.2 Information on the nutritious benefits of different types of food have	0=not needed	1=not so important	2=important	3=very important
9.6.3 Information on a balanced and diversified diet	0=not needed	1=not so important	2=important	3=very important
9.6.4 Information on the prices of nutritious food	0=not needed	1=not so important	2=important	3=very important
9.6.5 Information on how to prepare nutritious food	0=not needed	1=not so important	2=important	3=very important

9.6.6 Do you receive any information on nutrition?	1 =Yes 2 = No If no skip to 9.6.8		
How are you currently receiving information on nutrition (use the codes from list below)	(Rank the most important by level of importance)		
9.6.7 Can you list relevant channels from where you obtain information on nutrition.	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on nutrition in the future (use the codes from list below)	(Rank the most important by level of importance)		
9.6.8 Can you list relevant channels for information on nutrition that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____

9.6.9 Did you have enough food to eat last year?	Yes =1 No = 2 If yes go to 9.7	
9.6.10 Could you please indicate during what months of the year you do not have enough to eat? (Please mention all the months that you do not have enough to eat).		Not Enough
	1 = January	[____]
	2 = February	[____]
	3 = March	[____]
	4 = April	[____]
	5= May	[____]
	6 = June	[____]
	7 = July	[____]
	8 = August	[____]
	9 = September	[____]
	10 = October	[____]
	11 = November	[____]
12 = December	[____]	

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.7 Input markets
These questions are in relation to recurrent inputs that are needed in the agricultural sector and include such items as (fertilizer, seeds and pesticides)

What type of information do you need regarding input markets, such as fertilizers etc.?	Importance			
9.7.1 Information on the price of inputs coming from different suppliers (shops)	0=not needed	1=not so important	2=important	3=very important
9.7.2 Information on the price of inputs in different places (villages or towns)	0=not needed	1=not so important	2=important	3=very important
9.7.3 Information on the quality of the inputs	0=not needed	1=not so important	2=important	3=very important
9.7.4 Information on when these inputs are available	0=not needed	1=not so important	2=important	3=very important
9.7.5 Information on transportation cost	0=not needed	1=not so important	2=important	3=very important
9.7.6 Information on the technique on methods used to apply inputs	0=not needed	1=not so important	2=important	3=very important

9.7.7 Do you receive any information on input markets?	1 =Yes 2 = No If no skip to 9.7.9
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How are you currently receiving information on input markets (use the codes from list below)	(Rank the most important by level of importance)		
9.7.8 Can you list relevant channels from where you obtain information on input markets	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on input markets in the future (use the codes from list below)	(Rank the most important by level of importance)		
9.7.9 Can you list relevant channels for information on input markets that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____

9.7.10 Could you please indicate what are the months during the year that you are in need of information regarding such input markets such as Seeds (Please mention all the months that you need information on seeds).	Information Needs	
	1 = January	[___]
	2 = February	[___]
	3 = March	[___]
	4 = April	[___]
	5= May	[___]
	6 = June	[___]
	7 = July	[___]
	8 = August	[___]
	9 = September	[___]
	10 = October	[___]
	11 = November	[___]
	12 = December	[___]

9.7.11 Could you please indicate what are the months during the year that you are in need of information regarding such input markets such as Pesticides and Fertilizers (Please mention all the months that you need information on Pesticides and Fertilizers).	Information Needs	
	1 = January	[___]
	2 = February	[___]
	3 = March	[___]
	4 = April	[___]
	5= May	[___]
	6 = June	[___]
	7 = July	[___]
	8 = August	[___]
	9 = September	[___]
	10 = October	[___]
	11 = November	[___]
	12 = December	[___]

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.8 Credit and Financial support

These questions are in relations to the availability of monies or other forms of credit and finance that are available to rural populations for the purpose assisting them in their livelihood practices. These relate to both public and commercial support. This question is not linked to credit and financial support that is used for food, health, education, housing or other related costs.

What type of information do you need regarding credit and financial support ?	Importance			
9.8.1 Information on where to get credit and financing	0=not needed	1=not so important	2=important	3=very important
9.8.2 Information on the terms and conditions linked to applying for credit and financing	0=not needed	1=not so important	2=important	3=very important
9.8.3 Information regarding interest rates and other costs	0=not needed	1=not so important	2=important	3=very important
9.8.4 Information regarding debt repayment	0=not needed	1=not so important	2=important	3=very important

9.8.5 Do you receive any information on credit and financial support?	1 =Yes 2 = No <i>If no skip to 9.8.7</i>		
How are you currently receiving information on Credit and Financial support (use the codes from list below)	(Rank the most important by level of importance)		
9.8.6 Can you list relevant channels from where you obtain information on Credit and Financial support	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on Credit and Financial support in the future (use the codes from list below)	(Rank the most important by level of importance)		
9.8.7 Can you list relevant channels for information on Credit and Financial support that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10=Bank	11= Village Leader	12 = Other

9.9 Laws and Policies

These questions relate to policy and laws that have an impact on rural populations. Most of these policies and laws are made at national level and may not be well known to rural populations.

What type of information do you need regarding laws and policies?	Importance			
9.9.1 Information about policies and laws that relate to seeds	0=not needed	1=not so important	2=important	3=very important
9.9.2 Information about policies and laws that relate to fertilizer and pesticides	0=not needed	1=not so important	2=important	3=very important
9.9.3 Information about policies and laws that relate to land	0=not needed	1=not so important	2=important	3=very important
9.9.4 Information about policies and laws that relate to associations and other organizations	0=not needed	1=not so important	2=important	3=very important
9.9.5 Information about policies and laws that relate to fishing rights	0=not needed	1=not so important	2=important	3=very important
9.9.6 Information about policies and laws that relate to forests and vacant lands	0=not needed	1=not so important	2=important	3=very important

9.9.7 Do you receive any information on laws and policies?	1 =Yes 2 = No <i>If no skip to 9.9.9</i>		
How are you currently receiving information on laws and policies (use the codes from list below)	(Rank the most important by level of importance)		
9.9.8 Can you list relevant channels from where you obtain information on laws and policies?	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on laws and policies in the future (use the codes from list below)	(Rank the most important by level of importance)		
9.9.9 Can you list relevant channels for information on laws and policies that you would need in the future?	1 = Main _____	2= Second _____	3= Third _____

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man
9=Government extension workers	10= Companies	11 = Village Leader	12 = Other

9.10 Meteorology and environment

These questions relate to weather and environmental issues that concern rural populations.

What type of information do you need regarding meteorology and environment	Importance			
9.10.1 Information on rainfall prediction (when is it going to rain and how much)	0=not needed	1=not so important	2=important	3=very important
9.10.2 Information on temperature, sunshine and other weather conditions	0=not needed	1=not so important	2=important	3=very important
9.10.3 Information on the effect of weather on crop production	0=not needed	1=not so important	2=important	3=very important
9.10.4 Information on how to mitigate weather changes	0=not needed	1=not so important	2=important	3=very important
9.10.5 Information on soil degradation and soil conservation?	0=not needed	1=not so important	2=important	3=very important

9.10.6 Do you receive any information on meteorology and environment?	1 =Yes 2 = No <i>If no skip to 9.10.8</i>		
How are you currently receiving information on meteorology and environment (use the codes from list below)	(Rank the most important by level of importance)		
9.10.7 Can you list relevant channels from where you obtain information on meteorology and environment	1 = Main _____	2= Second _____	3= Third _____

How would you want to receive information on meteorology and environment in the future (use the codes from list below)	(Rank the most important by level of importance)		
9.10.8 Can you list relevant channels for information on meteorology and environment that you would need in the future.	1 = Main _____	2= Second _____	3= Third _____

List: Codes for information channels			
1=Radio	2=TV	3=Newspaper/weekly journal	4= Hand phone/internet
5= Friends/Family	6=Farmer association/cooperative	7=NGO/Other organizations/Private	8=Traders/middle man

9=Government extension workers	10= Companies	11 = Village Leader	12 = Other
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SECTION 10: MEANS OF COMMUNICATION

The section below is regarding different means of communications (TV, radio, newspaper, internet, family/friends, traders or extension workers). We would like to know if you use these means of communications, and how often, if the information they provide on livelihoods is easy to understand, reliable and useful.

Radio				
10.1	Do you ever listen to the radio?	1=yes	2=no	<i>If 'no', go to next section</i>
10.2	How often do you listen to the radio?	1=Almost every day	2=At least once a week	3=Less than once a week
10.3	What time of the day do you listen to the radio? Select all relevant answers.	1=Morning	2=Afternoon	3=Evening
10.4	What radio channels do you listen to? (Select top 3 from list)			
10.5	Do you receive information on livelihoods from the radio?	1=yes	2=no	<i>If 'no', go to next section</i>
10.6	Which radio channels do you get information on livelihoods from? (Select top 3 from list)			
10.7	Is the information on livelihoods on the radio easy to understand (not too technical)?	1=yes	2=no	
10.8	Do you consider the information on livelihoods on radio reliable (do you trust the information)?	1=yes	2=no	
10.9	Is the information on livelihoods on radio practical?	1=yes	2=no	

Code list for radio channels

1=Cherry FM	2=Mandalay FM	3=Pyinsawadi FM	4=Myanmar Radio, National Service
5=City FM	6=Padamyar FM	7=Shwe FM	8=Myanmar Radio, Yangon Service
9=FM Bagan	10=Padaukmyay FM	11=Thazin FM	

TV				
10.10	Do you ever watch TV?	1=yes	2=no	<i>If 'no', go to next section</i>
10.11	How often do you watch TV?	1=Almost every day	2=At least once a week	3=Less than once a week
10.12	What time of the day do you watch TV? Select all relevant answers.	1=Morning	2=Afternoon	3=Evening
10.13	What TV channels do you watch? (Select top 3 from list)			
10.14	Do you receive information on livelihoods from the TV?	1=yes	2=no	<i>If 'no', go to next section</i>
10.15	Which TV channels do you get information on livelihoods from? (Select top 3 from list)			
10.16	Is the information on livelihoods on TV easy to understand (not too technical)?	1=yes	2=no	
10.17	Do you consider the information on livelihoods on TV reliable (do you trust the information)?	1=yes	2=no	
10.18	Is the information on livelihoods on TV practical?	1=yes	2=no	

Code list of TV channels

1=MAHARBAWDI	7=MRTV-4	13=MRTV ENTERTAINMENT	19=MNTV	25=MWD Music
2= Readers Channel	8=Channel7	14=MITV	20=CHANNEL 9	26=MWD Documentary

3=for COMEDY	9=for EDU	15=HLUTTAW	21=MWD Variety	27=MWD Shopping.
4=for INFO	10=5-SPECIAL	16=NRC	22=MWD Movies	28=MRTV-3
5=for TUNES	11=5-SERIES	17=FARMER	23=MWD Series	29=POLICE
6=MRTV	12=5-THUKHUMA	18=MRTV SPORT	24=MWD	30= Farmer Channel

Newspapers and journals				
10.19	Do you ever read newspapers or weekly journals?	1=yes	2=no	<i>If 'no', go to next section</i>
10.20	How often do you read a newspapers or weekly journal?	1=Every day	2=At least once a week	3=Less than once a week
10.21	Do you purchase the newspapers yourself?	1=yes	2=no	
10.22	Which newspapers or weekly journals do you read? (Select top 3 from list)			
10.23	Do you receive information on livelihoods from the newspaper/journal?	1=yes	2=no	<i>If 'no', go to next section</i>
10.24	Which newspaper/journal do you get information on livelihoods from? (Select top 3 from list)			
10.25	Is the information on livelihoods in the newspapers or weekly journals easy to understand (not too technical)	1=yes	2=no	
10.26	Do you consider the information in the newspapers or weekly journals reliable (do you trust the information)?	1=yes	2=no	
10.27	Is the information on livelihoods in the newspapers or weekly journals you read practical?	1=yes	2=no	

Code list for written press						
Newspaper (Daily)		Journal (Weekly)				
1=7 days	8=The Emperor	14=7 days	21=Than Daw Sint	28=True News	35=Popular News	42=Ku Mu Dra
2=The Voice	9=The Freedom	15=The voice	22=Myanmar Post	29=Lu Htu Pone Yake	36=Hlat Ta Pyat	43=Modern
3=Daily Eleven Media	10=The Mirror	16=Eleven Media	23=Myanmar Post Global	30=Irrawaddy Burmese News (weekly)	37=Internet Journal	44=Hot News
4=Democracy Today	11=News Light of Myanmar	17=Yangon Times	24=Myanmar Times	31=Thu Ri Ra Nay Win	38=Taung Thu Gyi	45=Tomorrow
5=The Messenger	12=Myawaddy	18=Flower News	25=The Call	32=Asia Light	39=People Age	
6=The Standard Times	13=Myanmar Times	19=The Messenger	26=Hnin Si Phyu	33=Thu Ri Ra A Lin	40=Trade Times	
7=The Union (Pyi Htaung Su)		20=Envoy	27=Myanmar Age	34=A khont A Lann	41=Street View	

Mobile telephone/SMS				
10.28	Do you have access to a mobile phone?	1=yes	2=no	<i>If 'no', go to next section</i>
10.29	Which mobile provider do you use?	1=MPT	2=Telenor	3=Ooredoo 4= MEC
10.30	Do you receive information on livelihoods on the mobile phone by SMS?	1=yes	2=no	<i>If 'no', go to question 10.34</i>
10.31	Is the livelihoods information you receive by SMS easy to understand (not too	1=yes	2=no	

	technical)?		
10.32	Do you consider the livelihoods information you receive by SMS reliable (do you trust the information)	1=yes	2=no
10.33	Is the livelihoods information you receive by SMS practical?	1=yes	2=no
10.34	Would you be willing to pay to receive livelihoods information by SMS?	1=yes	2=no

Internet					
10.35	Do you have access to internet?	1=yes	2=no	<i>If 'no', go to next section</i>	
10.36	How do you access the internet?	1=Mobile phone	2=Own computer	3=Other computer (internet shop, friend)	
10.37	Do you receive information on livelihoods by internet?	1=yes	2=no	<i>If 'no', go to next section</i>	
10.38	Is the livelihoods information you receive by internet easy to understand (not too technical)?	1=yes	2=no		
10.39	Do you consider the livelihoods information you receive by internet reliable (do you trust the information)?	1=yes	2=no		
10.40	Is the livelihoods information you receive by internet practical?	1=yes	2=no		

Farmer associations and cooperatives					
10.41	Are you a member of a farmer association, farmer group or cooperative?	1=yes	2=no		
10.42	Do you receive information on livelihoods from a farmer association, farmer group or cooperative?	1=yes	2=no	<i>If 'no', go to next section</i>	
10.43	How do you receive information on livelihoods from the farmer association, farmer group or cooperative?	1=by phone	2=newsletter	3=word of mouth/ at meeting/training	
10.44	Is the livelihoods information from the farmer association, farmer group or cooperative easy to understand (not too technical)?	1=yes	2=no		
10.45	Do you consider the livelihoods information from the farmer association, farmer group or cooperative reliable (do you trust the information)?	1=yes	2=no		
10.46	Is the livelihoods information from the farmer association, farmer group or cooperative practical?	1=yes	2=no		

Extension services					
10.47	Have you ever received any livelihoods information from extension workers?	1=yes	2=no	<i>If 'no', go to next section</i>	
10.48	Which extension workers have you received livelihoods information from? Select all that are applicable	1=government	2=NGO/CBO	3=Private company	4=Other (specify)
10.49	How do you receive information on livelihoods from extension services?	1=by phone/sms	2= internet	3= word of mouth	

10.50	How many times have you been contacted by an extension worker in the last year?	Number of times	[]
10.51	Is the information you receive from extension workers easy to understand (not too technical)?	1=yes	2=no
10.52	Is the livelihoods information you receive from extension workers in a language you know?	1=yes	2=no
10.53	Do you consider the livelihoods information from extension workers reliable (do you trust the information)?	1=yes	2=no
10.54	Is the livelihoods information you get from extension workers practical?	1=yes	2=no

Traders, middle man or shops					
10.55	Do you ever obtain livelihoods information through traders, middle man or shops?	1=yes	2=no	<i>If 'no', go to next section</i>	
10.56	How do you receive information on livelihoods from traders, middle man or shops?	1=by phone/sms	2= internet	3=word of mouth/ at meeting/ training	
10.57	How often do you contact traders, middle man or shops to obtain livelihoods information?	1=daily	2=weekly	3=monthly	4=seasonally
10.58	Is the livelihoods information of traders, middle man or shops easy to understand (not too technical)?	1=yes	2=no		
10.59	Do you consider the livelihoods information of traders, middle man or shops reliable (do you trust the information)?	1=yes	2=no		
10.60	Is the livelihoods information you get from traders, middle man or shops practical?	1=yes	2=no		

Family/friends					
10.61	Do you ever obtain livelihoods information through family/friends?	1=yes	2=no		
10.62	Do you consider the livelihoods information from family/friends reliable (do you trust the information)?	1=yes	2=no		

UNESCO
Rapid Assessment of Community Information Needs for
Sustainable Livelihoods and Food Security

Information Needs Assessment

July - August 2015

Key Informant Discussion Guide

(With key stakeholders, public sector service providers, private sector service providers at the Yangon and township level and those involved in governance at the village level)

Yangon: _____

Date: _____

Township: _____

Time started:

Village: _____

Time completed:

Type: (please circle) public service provider / private service provider / governance actor

We would like to invite you to participate in a Key Informant Interview. We are undertaking an information needs assessment that is looking at the information needs of rural households living in Rakhine, Shan, Chin, Ayeyawady and Mandalay State/Regions. The assessment is conducted by DantDaLun Management and Consulting Services on behalf of UNESCO in collaboration with the Ministry of Information.

Taking part in this interview is totally your own choice. You can decide to not participate, or if you do participate you can stop taking part at any time for any reason. It will not have any negative effects.. If you agree to participate, we will ask you some questions regarding information needs and services. Be assured that any information that you provide will be kept strictly confidential. Your name will not be shared with anybody or any party. You can ask me any questions that you have about this survey before you decide to participate or not. Thank you.

1. Respondent name, position/organization

2. What types of agriculture and related rural livelihood information do rural households need?

3. How are households currently receiving such information?

4. Do they have their own local information sources and channels?
5. How useful is the information they receive from the different information channels?
6. How do they apply the information?
7. What is the current coverage (geographical area, number of people reached, and the future aim) of the services that are being provided or are being supported?

i) For Villager Leaders/Elders

- (1) Can you give an overview of the different information services that are available at the village level?
- (2) How are you currently supporting these services?
- (3) What language is used, are there different languages in use?
- (4) Who is the target audience?
- (5) Are these information services locally run? Do they cover multiple villages?
- (6) What barriers or obstacles do these information sources face?
- (7) What are rural people's attitudes towards the use of Information Communication Technology? (Internet, and SMS messages by hand phone)

ii) For Township Administrators

- (1) Can you give an overview of the different information services that are available at the township level?
- (2) How are you currently supporting these services?
- (3) What language is used, are there different languages in use?
- (4) Who is the target audience?
- (5) Are these information services locally run? Do they cover multiple townships?
- (6) What barriers or obstacles do these information sources face?
- (7) What are rural people's attitudes towards the use of Information Communication Technology? (Internet, and SMS messages by hand phone)

iii) For Public and Private Service Providers (Extension Services or Media)

- (1) What services or information do you currently provide or how are you supporting information needs?
- (2) Who is the target audience?
- (3) What is the frequency of the production of information that you provide?

- (4) Do these services have costs? Are they free?

- (5) What language are the services provided in?

- (6) What technology or infrastructure is required to access the services?

- (7) What barriers or obstacles do these information services face?

- (8) What is being done for those that have no access or cannot afford the costs?

- (9) What are rural people's attitudes towards the use of Information Communication Technology? (Internet, and SMS messages by hand phone)

UNESCO
Rapid Assessment of Community Information Needs for
Sustainable Livelihoods and Food Security

Information Needs Assessment

July - August 2015

Focus Group Discussions Guide

(FGD with Men and Women in Rural Communities)

Township: _____

Date: _____

Village: _____

Time started: _____

Number of Men (M) or Women (W): ____/____

Time completed: _____

Creating a good rapport

1. Introduce yourself to the group members and have the members introduce themselves.
2. Create a comfortable atmosphere with a light talk on the purpose of the meeting (FGD), and also include some humor if possible. Explain the purpose of the FGD and that it is voluntary. If persons decide not to participate, or if they decide to leave after taking part at any time for any reason, this will not have any negative effects on them or their household. If they decide to participate, the information that will be discussed will be kept confidential and no names will be cited at any time.
3. Request permission that you will take notes, or make records.

Moderating discussion

1. There are four broad issues to be discussed with the participants: i) the most important information channels that relate to agriculture, rural livelihoods and food security; ii) how these are currently used or not used; iii) what forms of information they would like to receive and; iv) what they think of information technology, how important is it and would they be willing to pay for it. Initiate the discussion by raising broad questions first, and following with more probing questions. Please don't forget to probe for local information channels that villagers may have developed for themselves such as village gatherings, on festival occasions or other channels.
 - a) **What are the most important information channels to get information on livelihoods that you use and why are these important? (Besides radio, TV, newspapers and extension and other formal channels, please probe for any local channels of information)**

- b) How do you use the information that you obtain from these information channels? (From local channels)**
- c) Do you have any problems with the information you receive? If so what are the problems?**
- d) Could you explain what kind of information you would like to receive more in the future and why?**
- e) Could you explain what you think about information technology (internet sites, telephone applications, SMS)?**
- f) Do you think that information technology will become more important in the future and why/why not?**
- g) Would you be willing to pay for information on livelihoods if this were made available through SMS?**
(In other areas of the world, the receiving and sending of SMS messages has helped rural people with their farming and or business as well as help reduce risks. SMS has been used to send messages on weather conditions, soil conditions, fish stocks, or about commodity prices).

ANNEX 2: LIST OF ORGANISATIONS INTERVIEWED

The following table shows the organisations interviewed for the key informant interviews and designations of the persons interviewed.

State/Region	Township	Organisation	Designation
Yangon		Metta Foundation	National Agriculture and Forestry Sector Coordinator
		Agriculture Mechanisation Department, Ministry of Agriculture and Irrigation	Regional Level Officer
		Winrock International	Country Director
		Myanmar Agricultural Development Bank (MADB)	Deputy General Manager Assistant General Manager Manager
		Agricultural and Farmer Federation of Myanmar	Vice-President General Secretary
		Ayeyawady Company	Managing Director
		Farmer Channel	Consultant
		Shwe FM	Executive Director
		Aventine Limited	Managing Director Manager, Contract farming department Manager, Mobile technician team
		Myanmar Climate Change Watch	Chief Executive Officer
		SKYNET Agriculture Livestock and Forestry Channel	General Manager
		Food Security Working Group	Project Manager Knowledge Sharing Manager
		Green Peasant Institute	Founder
		World Vision	Livelihood Manager
The Farmer Journal	Editor-in-chief		
Shan	Hopong	Middleman	Middleman
		Information and Public Relations Department, Ministry of Information	Township Officer
		Department of Agriculture, Ministry of Agriculture and Irrigation	Staff Officer
		Metta Foundation	Facilitator
		General Administration Department	Township Officer
		Golden Key Agrochemical Company	Extension Worker
	Hsihseng	Department of Agriculture	Agriculture Officer
		U Maung Buying and Selling	Middleman
		U Warah Broker House	Middleman
		General Administration Department	Township Administrative Officer
		Naung Mon Agriculture Shop	Shop Owner
		Diamond Star Company	Seasonal extension worker
	Kyaukme	Myanmar Anti-Narcotics Association	Chairman
		Ko Sai Aung Agrochemical and Seed Shop	Shopkeeper
		Department of Agriculture, Ministry of Agriculture and Irrigation	District Staff Officer Township Staff Officer Junior Staff Officer
		PACT	Branch Manager
		Phyo Yadanar Htun Crops and Agrochemicals Buying and Selling	Manager
		CP Yangon Company Ltd.	Senior Marketing Department Manager
Chin	Falam	GRET	Township Manager
		Ministry of Information	Township Officer
		Ministry of Information	Deputy Township Officer
		Ministry of Agriculture and Irrigation	Assistant Director
		Ministry of Agriculture and Irrigation	Township Officer
World Vision	Design, Monitoring and Evaluation Facilitator		

	Tedim	Ministry of Information	Librarian	
		Ministry of Information	Deputy Township Officer	
		Ministry of Agriculture and Irrigation	Deputy Township Officer	
		Ministry of Agriculture and Irrigation	Township Officer	
		Save the Children	Area Manager	
Ayeyawady	Mawlamyineg yun	Prawn and fish broker	Prawn and fish broker	
		Doe Khit Fertilizer and Diesel Shop	Shop owner	
		Standard Times	Freelance Reporter	
		Freelance	Ex-photo expert of Information and Public Relations Department, Ministry of Information	
		Proximity Design	Deputy Branch Manager	
		Ministry of Agriculture and Irrigation	Deputy Township Manager	
	Bogale	Information and Public Relations Department, Ministry of Information	Township Officer	
		GRET	Extension worker	
		PACT	Programme Manager	
		Rice and paddy broker	Rice and paddy broker	
		Rice mill	Clerk	
		Rice mill	Manager	
	Labutta	General Administration Department	Township General Administrator	
		Department of Agriculture, Ministry of Agriculture and Irrigation	Township Manager	
		Mercy Corps	Market Development Officer	
		PACT	Township Manager	
Township Rice Association		Chair		
Labutta Township TV Station		Assistant Engineer		
Rakhine	Myebon	International Rescue Committee	Monitoring and Evaluation Officer	
		Department of Agriculture, Ministry of Agriculture and Irrigation	Township Officer	
		Department of Rural Development, Ministry of Livestock, Fishery and Rural Development	Township Engineer	
		Department of Fisheries, Ministry of Livestock, Fishery and Rural Development	Township Officer	
		Information and Public Relations Department, Ministry of Information	Deputy Township Officer	
		Peacemaker Company	Representative	
	Minbya	Department of Agriculture, Ministry of Agriculture and Irrigation	Township Extension Officer	
		Agricultural machine shop	Shopkeeper	
		General Administration Department	Township General Administrator	
		Information and Public Relations Department, Ministry of Information	Township Officer	
		Livestock Breeding and Veterinary Department, Ministry of Livestock, Fishery and Rural Development	Township Officer	
		Rice Association	Chair	
	Kyaukpyu	General Administration Department	Township Deputy General Administrator	
		Department of Agriculture, Ministry of Agriculture and Irrigation	Township Manager	
		Information and Public Relations Department, Ministry of Information	District Officer	
		Kyaukpyu TV Sub-station	Electronic Technician	
		Agricultural machine shop	Shop owner	
		Better Life Organisation	Monitoring and Evaluation Officer	
	Mandalay	Mahlaing	Ngwe Tike Khuu Trading	Trader
			Disability Resource Center, Leprosy Mission	Physiotherapist
			Information and Public Relations	Librarian

		Department, Ministry of Information	
		Ministry of Agriculture and Irrigation	Township Officer
		Ministry of Information	Township Officer
		Trade Union, Mahlaing	President
	Natogyi	Ministry of Information	Township Officer
		Broker	Broker
		U Tein Naing Tun Trading	Broker
		Department of Agriculture, Ministry of Agriculture and Irrigation	Extension Worker
		Information and Public Relations Department, Ministry of Information	Librarian
		Department of Agriculture, Ministry of Agriculture and Irrigation	Township Officer
		Department of Agriculture, Ministry of Agriculture and Irrigation	Township Officer
	Taungtha	Department of Agriculture, Ministry of Agriculture and Irrigation	Township Officer
		Sein Pua Trading	Broker
		PACT Myanmar	Township Manager
		Ministry of Information	Township Officer
Information and Public Relations Department, Ministry of Information		Librarian	

ANNEX 3: DESCRIPTION OF AGRICULTURE AND LIVELIHOOD INFORMATION CATEGORIES

Production assets: Production assets are items or resources that have economic value that an individual, a corporation or organization owns or controls with the expectation that it will provide future benefits. This can include property, land, a fishing boat and a power tiller, a hand tractor, fishing nets or a storage facility. These are not items which have to be regularly replenished like fertilizer or pesticide. The study assesses information needs related to purchase, use and maintenance of production assets.

Commodity markets: Information on commodity markets refer to the prices and transportation costs for crops or other products such as paddy, beans, fish, chicken, buffalo, sesame, potatoes that are produced and then sold at a market.

Casual labour markets: Casual labour markets relate to the demand and supply of casual and daily labour that are available in the market in rural areas. The study explores information needs related to the cost and availability of labour, capacity and work conditions.

Technology and innovations: Information on technology and innovations include information on new types of technology such as new nets, new type of tractors, new cultivation techniques and as well as to new ideas, devices or methods of doing things.

Training and extension services: Training and extension services include those from both public and private sources that are considered external support that provide knowledge and technical support from agencies like the Department of Agriculture, private companies and NGOs. The study explores information needs related to the availability, costs and types of training and extension services.

Nutrition: Nutrition encompasses many things and can be interpreted as the interaction of nutrients and other substances in relation to maintenance, growth, reproduction, health and disease within human beings. Information related to nutrition includes information on the price and benefits of healthy or nutritious food, preparation of a balanced and diversified diet made up of different foods and vegetables.

Inputs: Information on inputs refer to the prices, quality and availability of recurrent inputs that are needed in the agricultural sector such items as fertilizer, seeds and pesticides.

Credit and finances: Credit and finances relate to the availability of monies or other forms of credit and finance that are available to rural populations for the purpose of assisting them in their livelihood practices. These include both public and commercial support. The study did collect information on credit and financial support that is used for food, health, education, housing or other related costs.

Policy and laws: The section on policy and laws assesses information on policies that have an impact on rural populations such as the seed law, land law and association law. Most of these policies and laws are made at national level and may not be well known to rural populations.

Weather and environmental issues: Information on weather and environmental issues include issues that concern rural populations such as rainfall, temperature, sunshine, the effect of weather on crops, and how to mitigate weather changes.

ANNEX 4: DATA ON ACCESS TO COMMUNICATIONS FROM 2014 CENSUS

State/region	Township	Radio	Television	Landline phone	Mobile Phone	Computer	Internet	None	All
National		35.5%	49.5%	4.8%	32.9%	3.5%	6.2%	30.3%	0.5%
Ayeyawady	Bogale	37.9%	31.0%	4.5%	17.1%	1.0%	2.1%	43.8%	0.4%
	Labutta	43.2%	31.9%	6.1%	14.4%	0.9%	1.2%	40.4%	0.1%
	Mawlamyinegyun	26.3%	23.4%	3.4%	10.5%	0.6%	1.0%	43.8%	0.1%
Rakhine	Minbya	11.7%	7.5%	1.0%	4.3%	0.3%	0.5%	66.9%	0.1%
	Kyaukphyu	12.5%	12.2%	1.2%	7.8%	0.6%	0.5%	56.9%	0.1%
	Myebon	12.6%	7.0%	0.7%	3.3%	0.3%	0.5%	59.5%	0.1%
Mandalay	Mahlaing	23.6%	18.4%	2.6%	6.8%	0.5%	0.8%	28.5%	0.5%
	Natogyi	26.6%	21.1%	2.7%	13.9%	0.3%	0.6%	29.1%	0.1%
	Taungtha	35.1%	19.1%	2.5%	15.3%	0.5%	0.9%	31.0%	0.1%
Shan	Hopong	6.7%	14.8%	1.1%	6.8%	0.5%	0.8%	43.8%	0.3%
	Hsihseng	10.6%	21.8%	1.4%	6.3%	0.4%	0.8%	41.7%	0.2%
	Kyaukme	7.9%	22.4%	1.5%	13.9%	1.2%	1.2%	29.4%	0.2%
Chin	Falam	2.0%	4.6%	0.7%	4.1%	0.3%	0.3%	42.7%	0.4%
	Tedim	3.4%	5.9%	1.4%	3.9%	0.7%	0.4%	58.9%	0.7%
	Tonzang	0.6%	1.0%	0.1%	0.5%	0.1%	0.0%	66.8%	0.1%