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Organization of the
United Nations

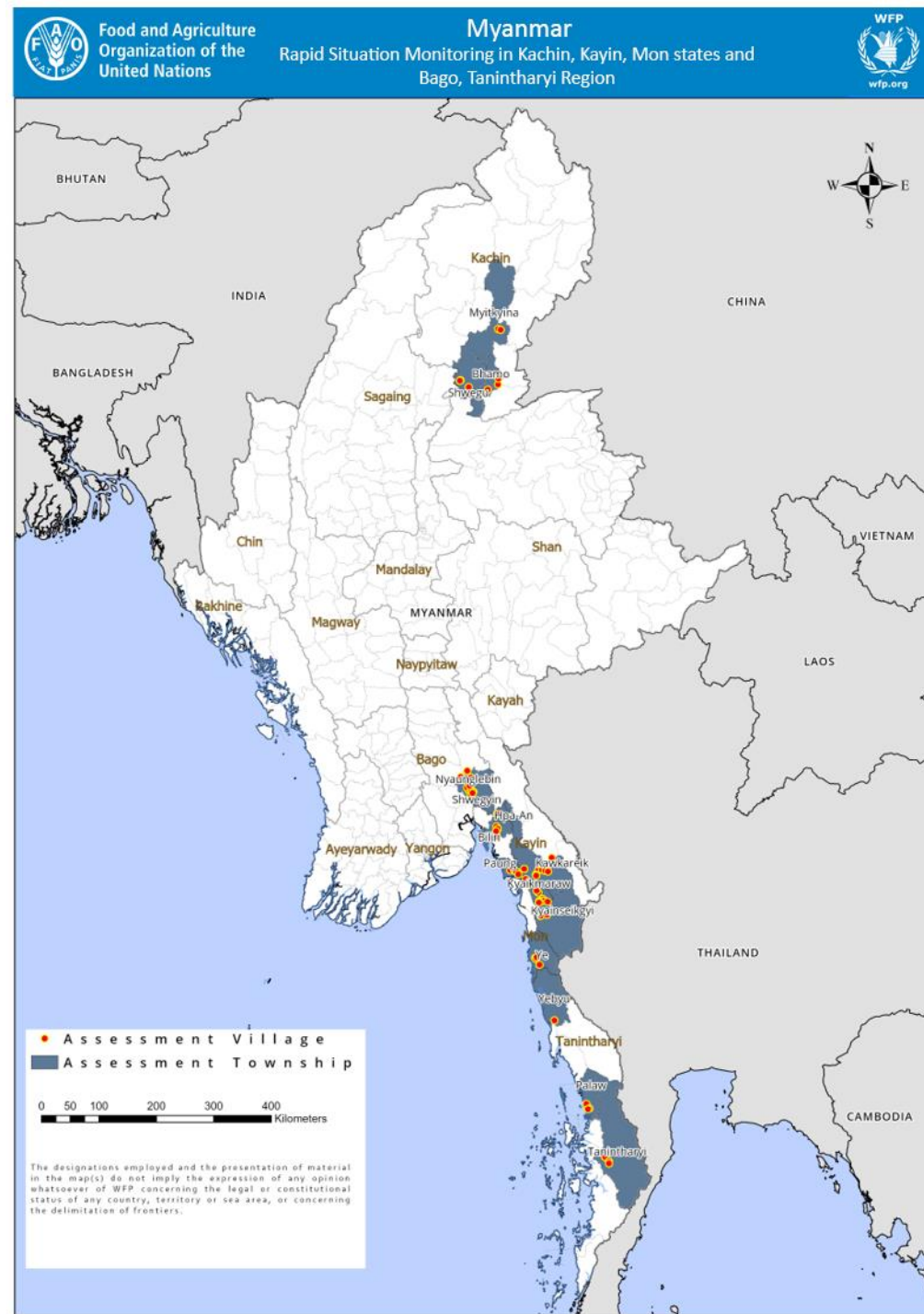


2019 Rapid Situation Monitoring in Flood Affected Communities in Bago, Kachin, Kayin, Mon and Tanintharyi

Rapid Situation Monitoring

- RSM aimed to monitor the food security and livelihood situation among flooded affected communities by heavy rains and floods (July 2019) in 5 states and regions
- Approximately **83,000 people** were displaced due to the first round of flooding in Chin, Kachin, Magway, Mandalay Sagaing and Rakhine. The second round of flooding brought heavier rains, resulting in a worsening flood situation, which by 14 August 2019 had displaced an additional **147,000 people** in Ayeyarwaddy, Bago, Kayin, Mon, Tanintharyi and Yangon.
- RSM undertaken between 20 Sept – 5 Oct 2019. It is based on Focus Group (FG) discussions with village authorities in **66 villages** plus **435 households (HH)** interviewed in **15 townships** of 5 states and regions (see map).
- The most affected areas were townships in Mon and Kayin, where floods damaged croplands, shelters, water and sanitation facilities, other infrastructures
- Small-holder farmers, casual laborers, female headed households, and households with children seem to be the groups most vulnerable to the flood impacts
- The RSM was carried out by the government of Myanmar, FAO and WFP.

State and Region	Township	#of villages
Bago	Nyaunglebin	5
	Shwegyin	5
Kachin	Bhamo	4
	Myitkyina	2
	Shwegu	3
Kayin	Hpa-An	4
	Kawkaeik	5
	Kyainseikgyi	7
Mon	Bilin	8
	Kyaikmaraw	6
	Paung	5
	Ye	5
Tanintharyi	Palaw	3
	Tanintharyi	3
	Yebyu	1



Food and Agriculture Organization of the United Nations

India

Puta-O

Tanai

Kachin

Tsawlaw

Sagaing

Mogaung

Myitkylina

Waingmaw

China

Mohnyin

Shwegu

Bhamo

Momauk

Mansi

Shan (North)

Flood affected townships (Nos. of Acres)

- 0 - 976
- 976 - 2470
- 2470 - 5127
- 5127 - 11736
- 11736 - 18939

Map ID: 2019 Flood affected area in Kachin State
Creation Date : 6 November 2019,
Designed for A3Map produced by FAO Emergency Unit
Data source : Official draft information of MoALI

Map ID: 2019 Flood affected area in lower Myanmar
 Creation Date : 6 November 2019, Designed for A3
 Map produced by FAO Emergency Unit
 Map data : Official information of MoA/L

Legend: Flood affected townships (Nos. of Acre)

Flood affected townships (Nos. of Acre)
0 - 976
976 - 2470
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5127 - 11736
11736 - 18939

Map ID: 2019 Flood affected area in lower Myanmar
Creation Date : 6 November 2019, Designed for A3
Map produced by FAO Emergency Unit
Data source : Official draft information of MoALI



Flood affected area in Myitkyina township, Kachin State (14. July 2019)



Flood affected Maize farmland in Myitkyina township, Kachin State (16 July 2019)



Flood affected maize farmland in Myitkyina, Kachin State (16 July 2019)

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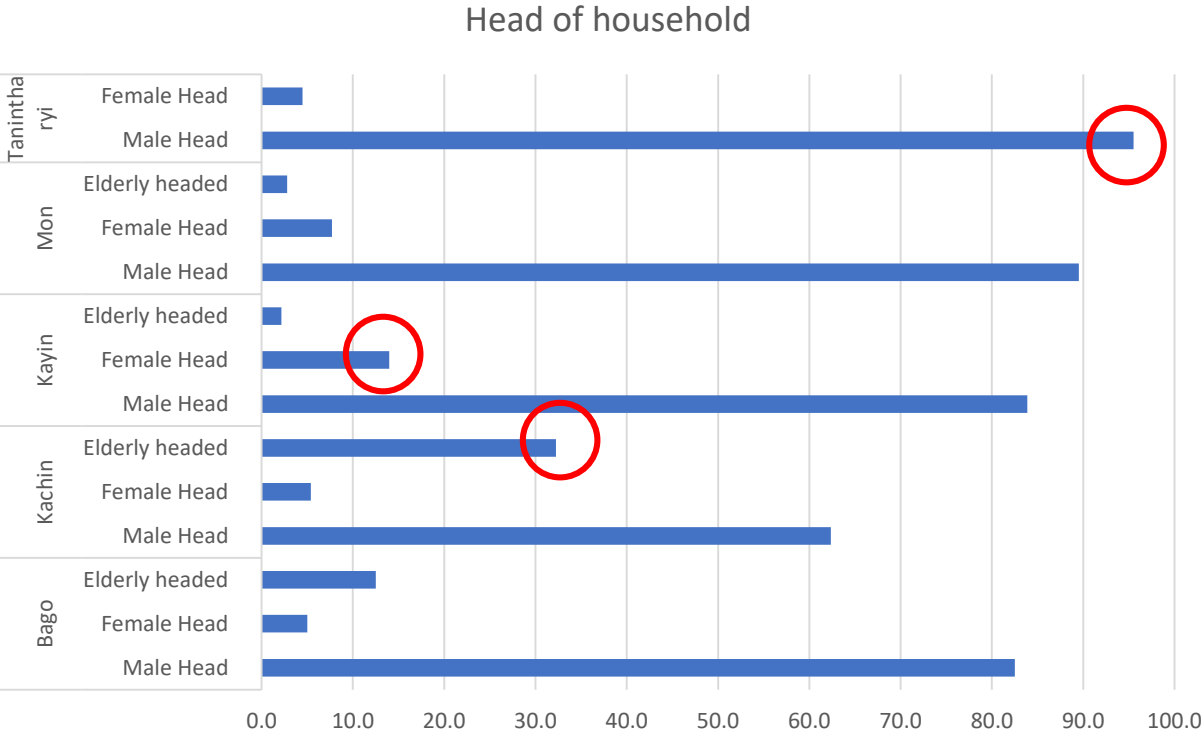
C.- CONCLUSIONS

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A.- FOOD SECURITY AND VULNERABILITY SECTION



A.1.- Household Demographics & Livelihoods

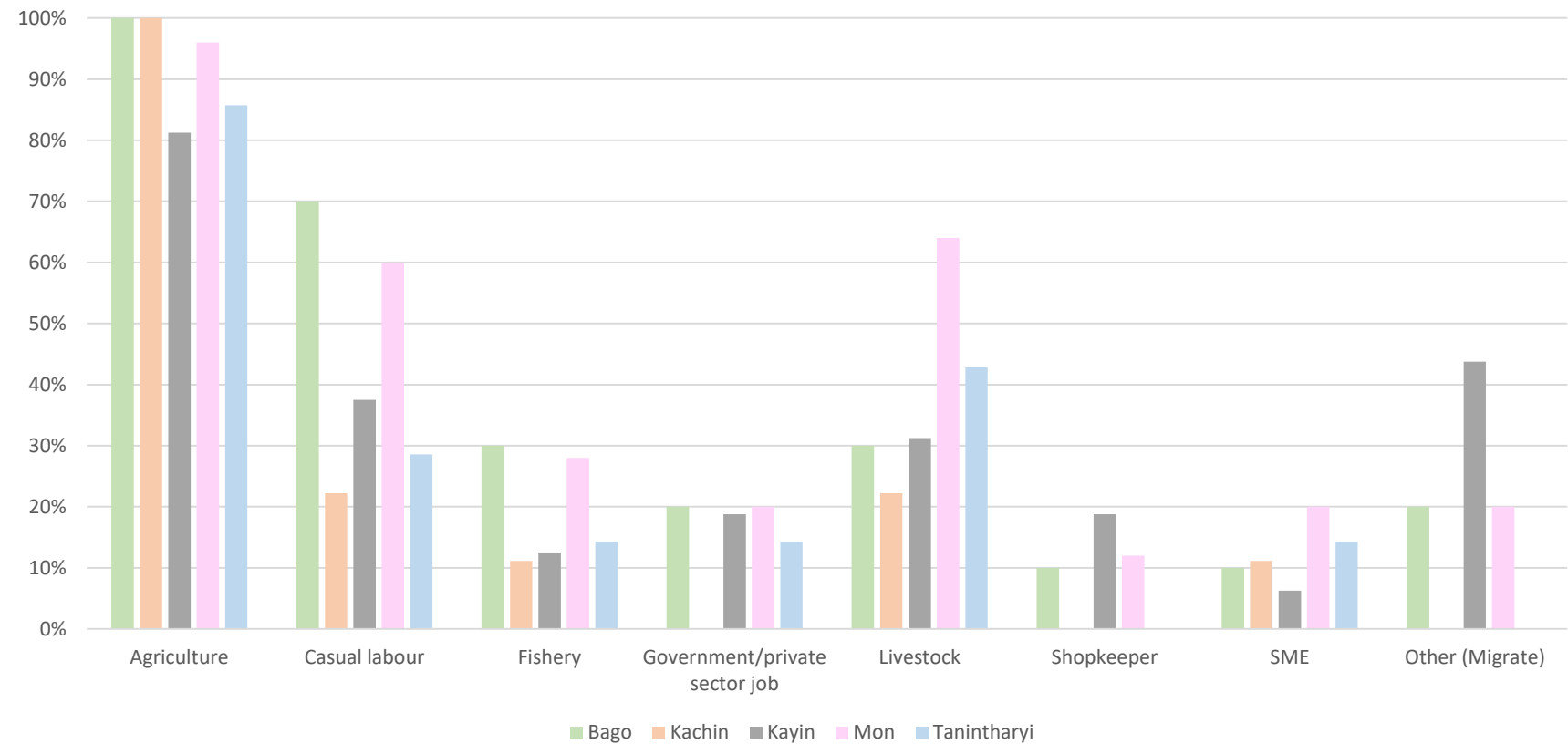


Average household size: **5.6**

State and Region	Household Size
Bago	5.2
Kachin	5.7
Kayin	5.9
Mon	5.6
Tanintharyi	5.9

- In Tanintharyi & Mon, more than 9 out of 10 are MHH
- In Kayin, FHH represent 15%
- In Kachin, Elderly-headed Households are more than 30%

Livelihood activities (by % of villages in every State/Region)

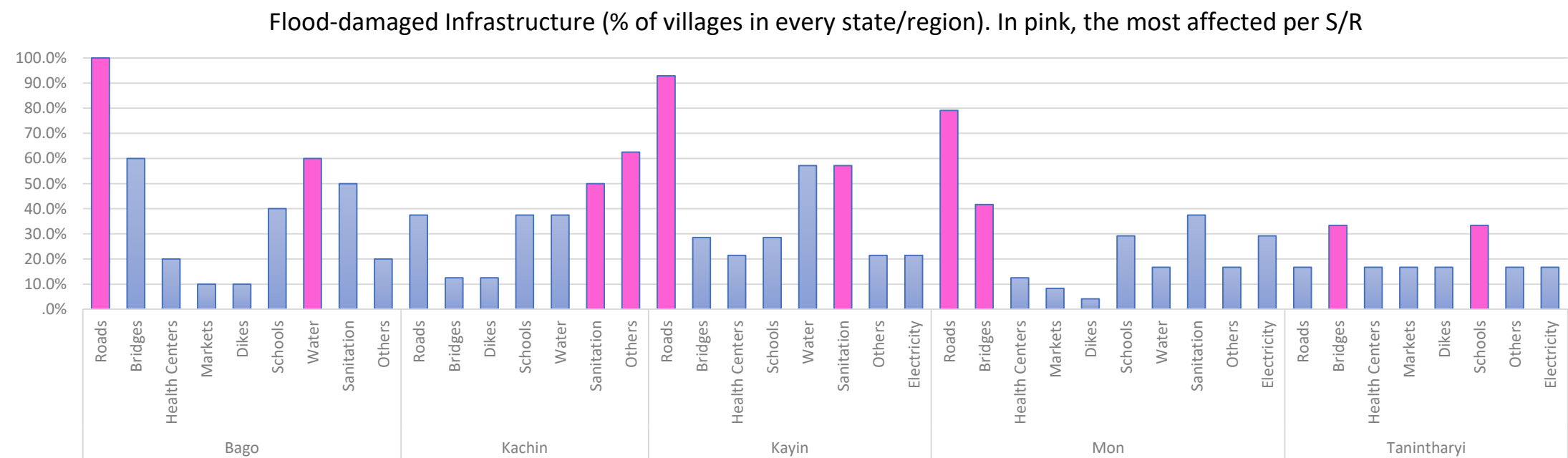
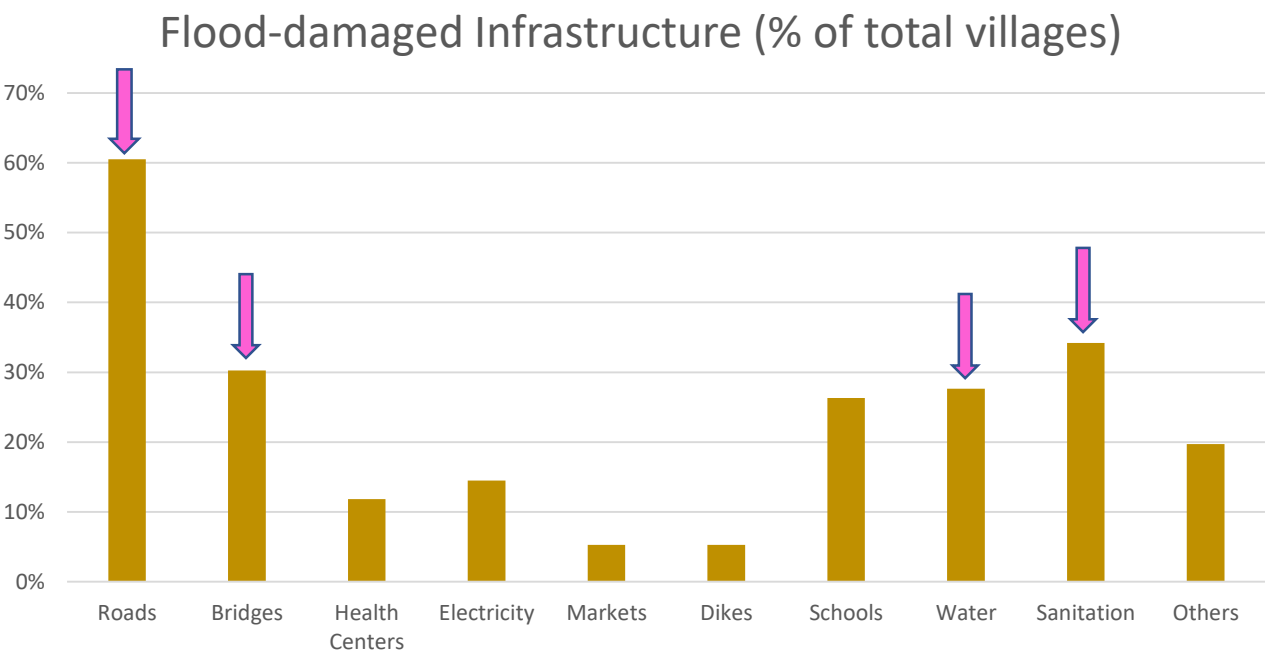


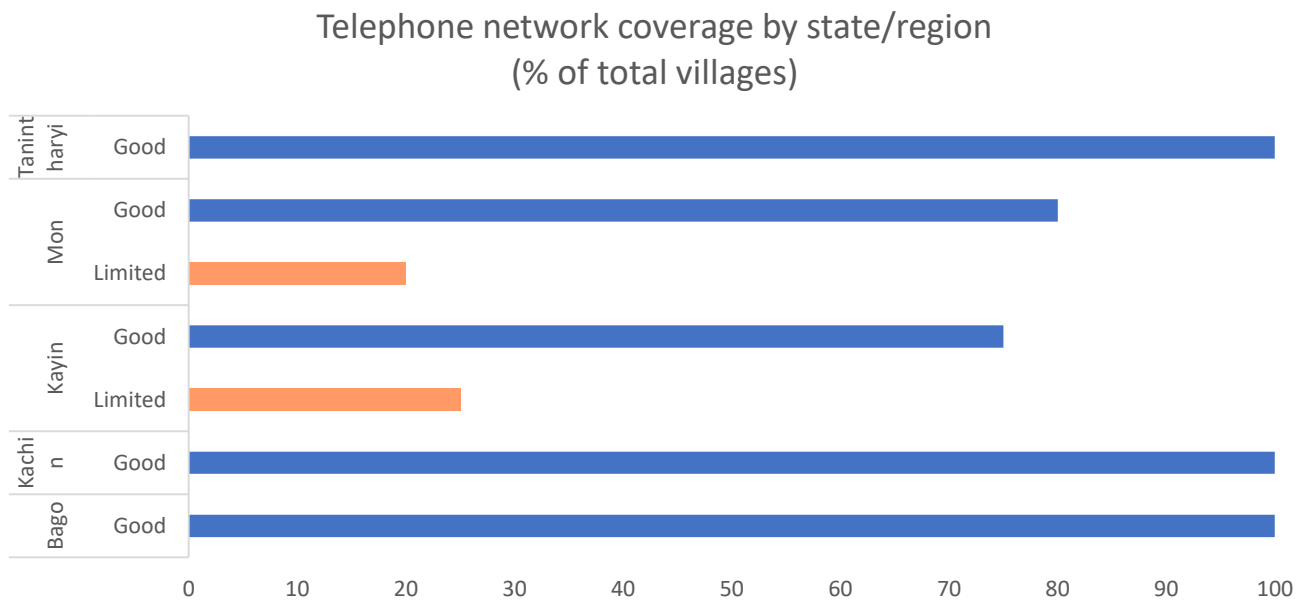
- 1. **Agriculture** is highly relevant in all states/regions
- 2. **Casual Labour** is relevant in Bago & Mon, but not so much in the others
- 3. **Livestock** is relevant in Mon & less in Tanintharyi
- 4. **Inland Fisheries** have only relevance in Bago & Mon
- 5. **Migration/Remittances** are relevant in Kayin
- 6. **Waged jobs, trading and Small Medium Enterprises** are lower than 20% in all states

State and Region	Bago	Kachin	Kayin	Mon	Tanintharyi
# villages assessed	10	9	16	24	7

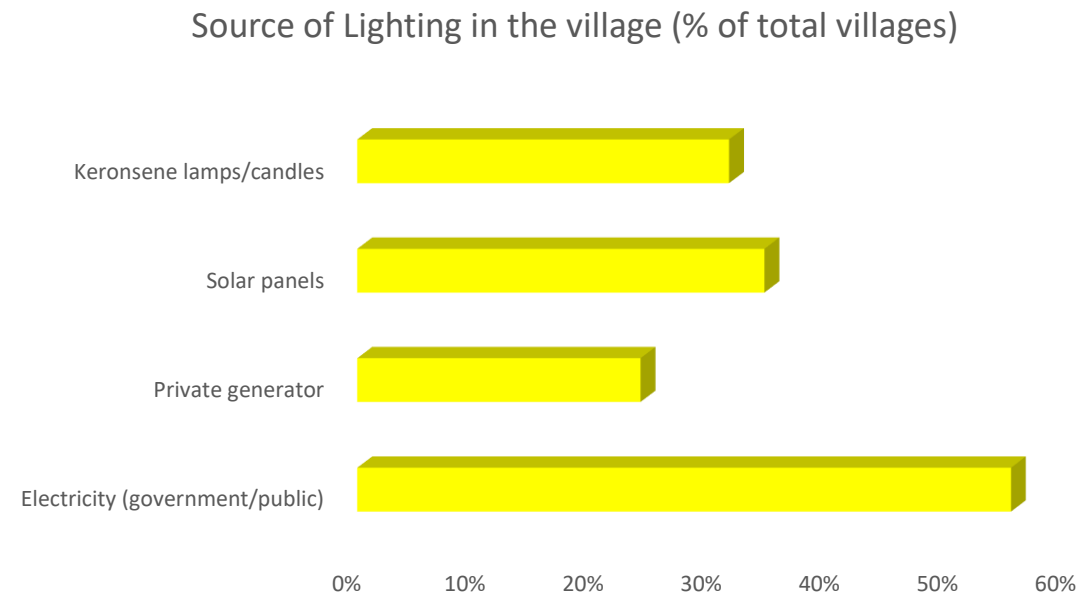
A.2.- Damaged Infrastructure

- In Bago, 100% reported floods had damaged the roads used by the villagers, 81% in Kayin and 76% in Mon
- At least 30-40 percent had experienced sanitation and water problem after flooding

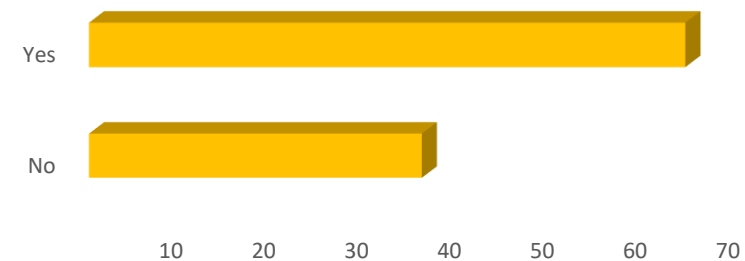




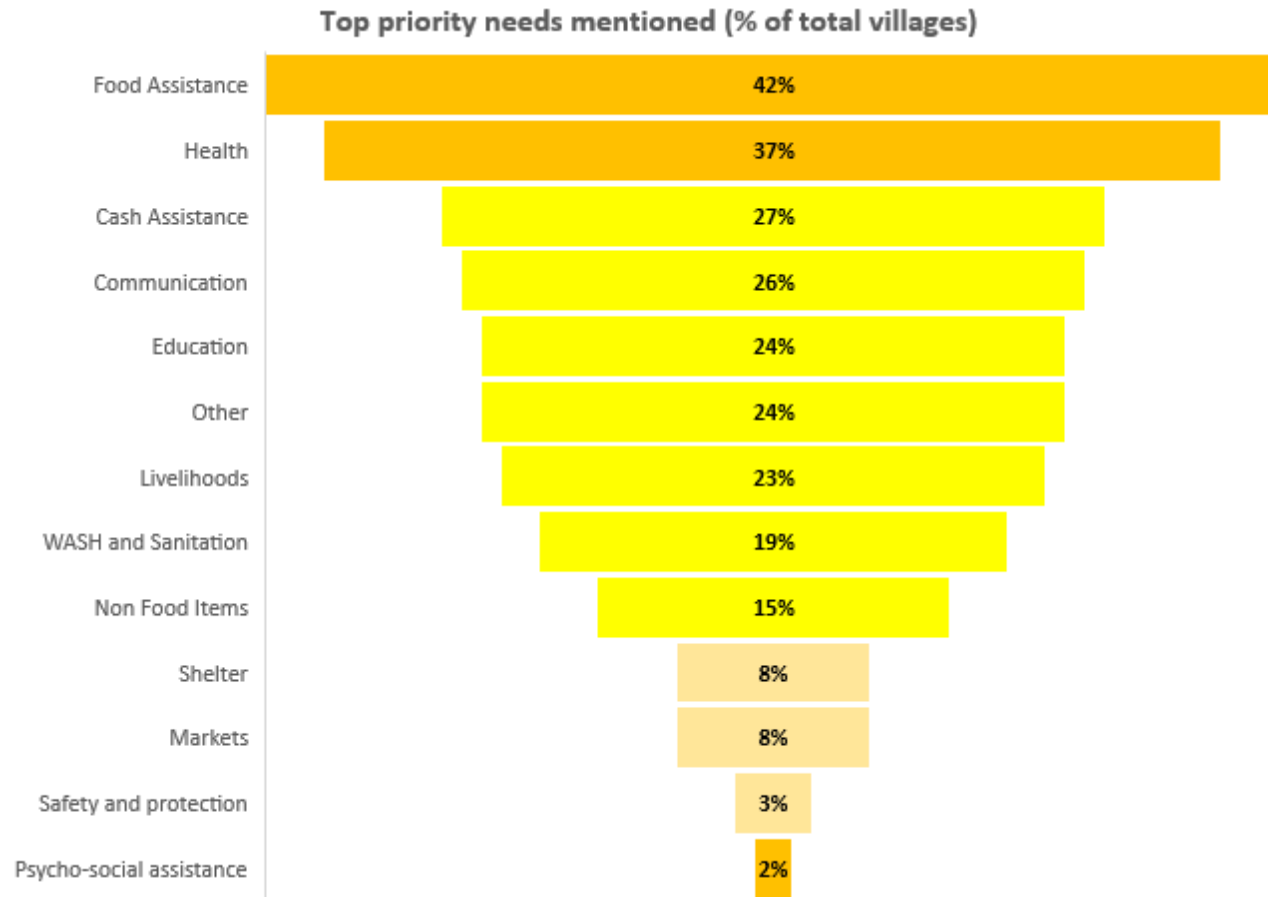
Overall, floods did not have a severe impact on telephone phone network, which remained good in most of the villages.



RHC or Health facility in the village (% of total villages)



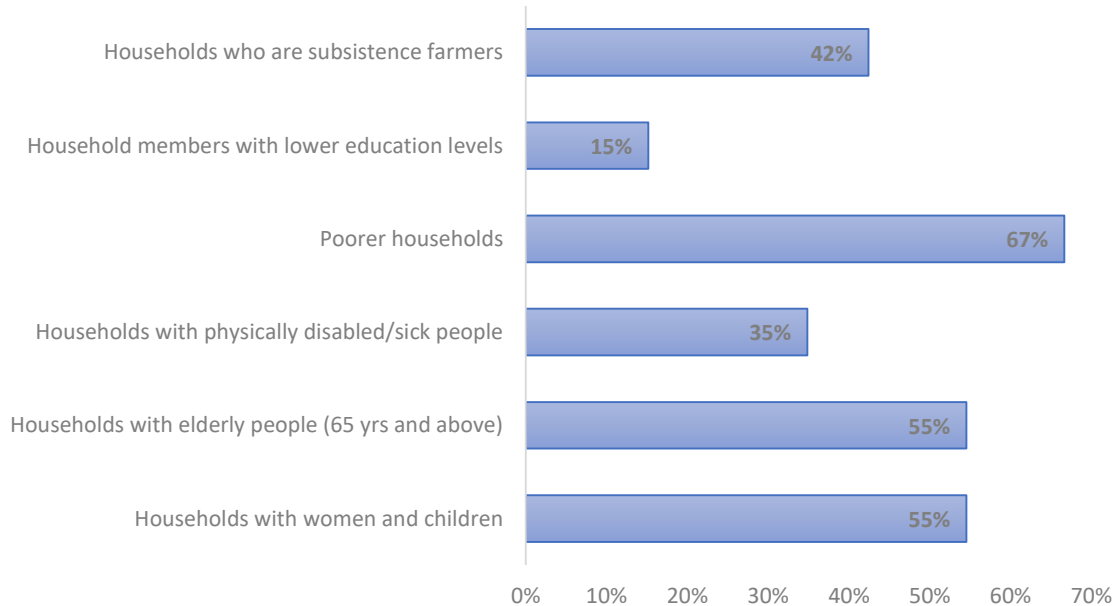
A.3.- Priorities for assistance (by villages)



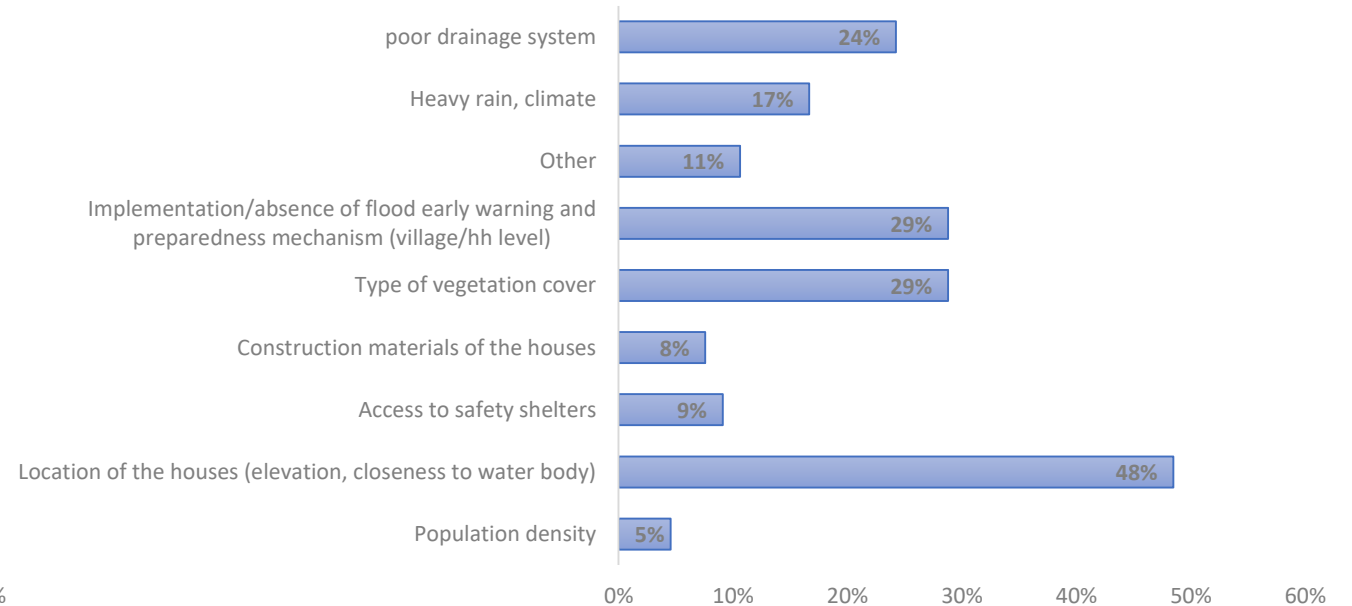
- Some of the priorities for assistance in the villages were food and health (the most demanded), livelihood rehabilitation, wash and non-food items, better communications and cash support.
- In “Others” section, communities requested canoes and life jackets to be used during the floods, plus emergency/preparedness trainings. Also, some requested to repair and clean the channels and water-retaining walls so as to improve the village drainage system

A.4.- Vulnerability to floods and recovery capabilities

More vulnerable household to flood
(by % of total villages)

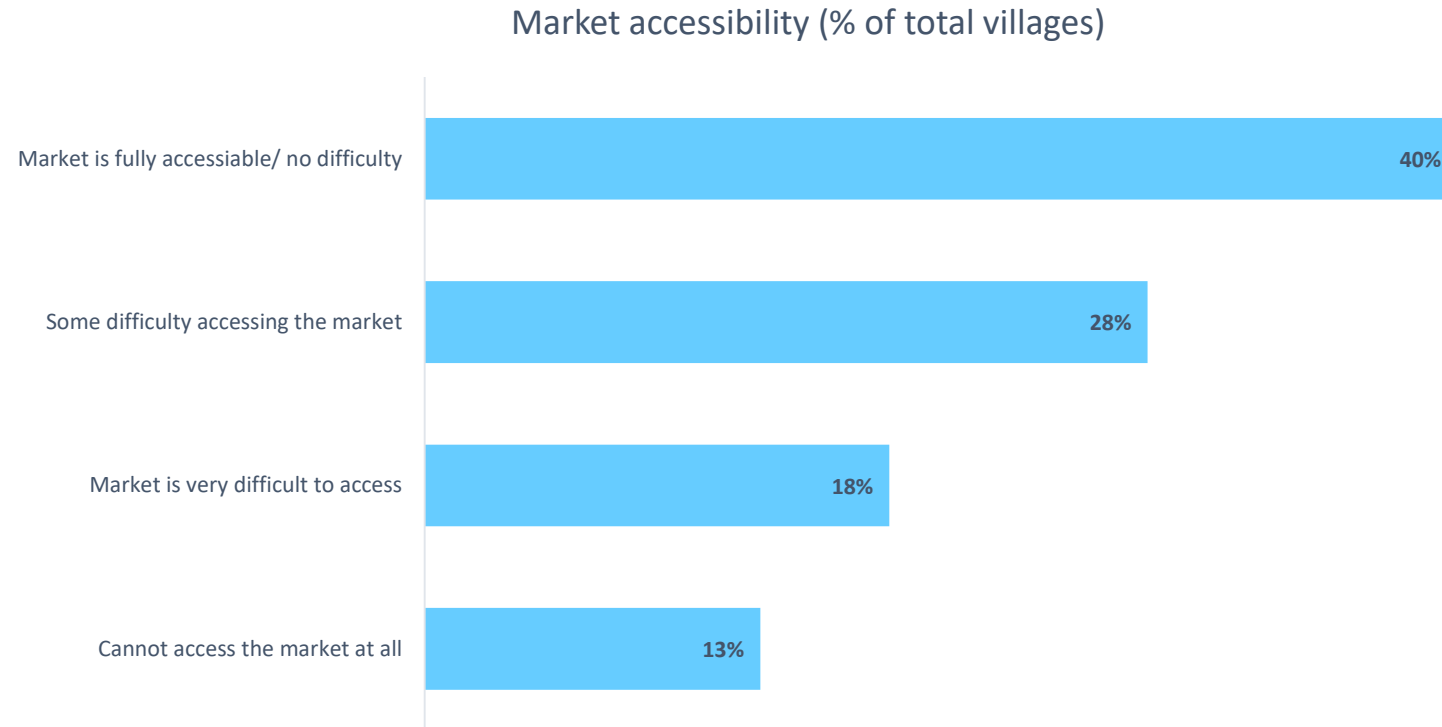


significant factors that affect the vulnerability to flood
(by % of total villages)



Poor, Elderly-headed & Female-headed households, HHs with U5 children and women & subsistence farmers are types of households more vulnerable to floods and with less recovery capabilities

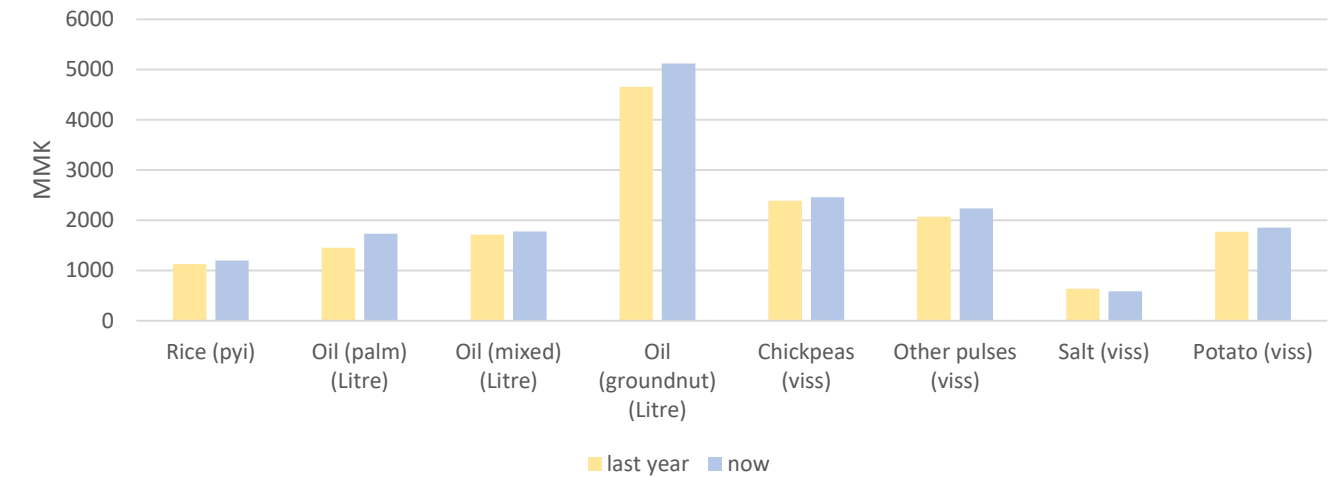
A.5.- How were markets affected during the flood?



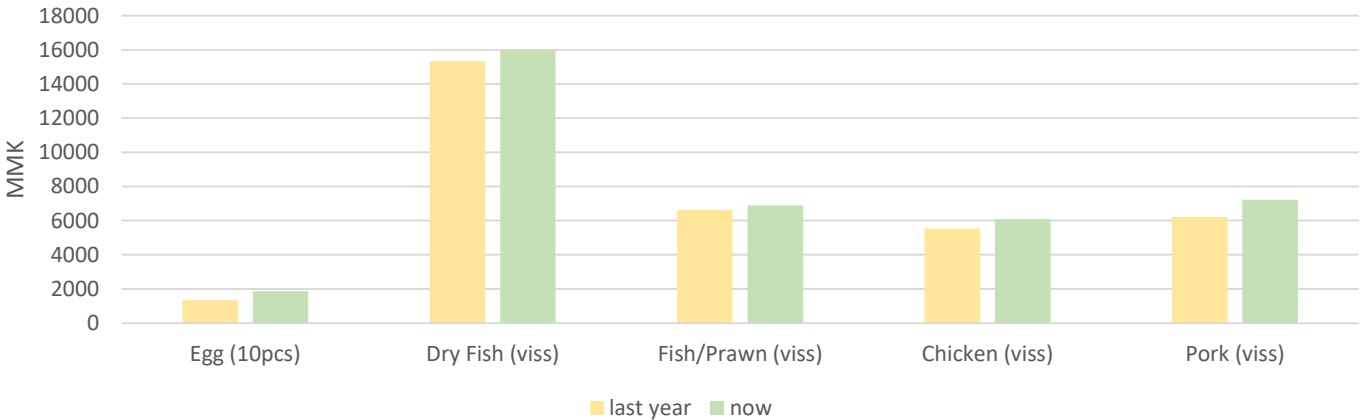
Market accessibility hasn't been severely affected by the floods (only 30% have difficulties). Nearly 70% of village informants reported that markets and shops were fully functioning or only having some difficulties.

Prices evaluation

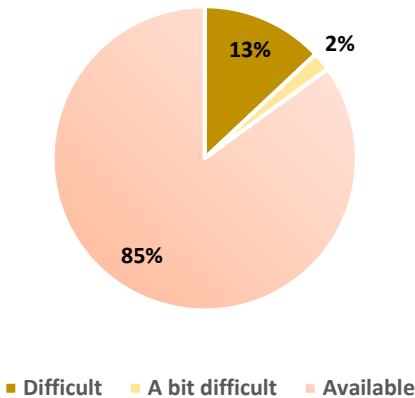
Prices evaluation of Rice, Oil, Pulses and other food items in the area
(2018 and 2019 flood season)



Prices evaluation of fishes, meats and eggs
(2018 and 2019 flood season)



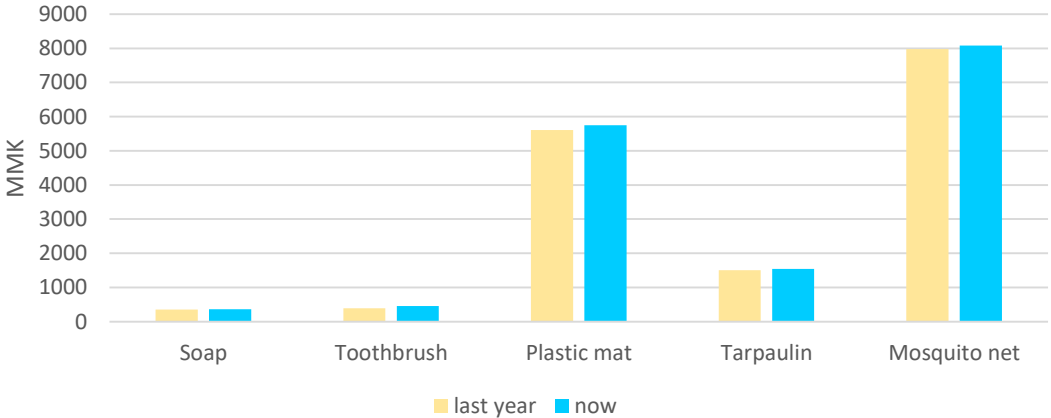
Availability of Rice



1.- Prices for food and non-food items were not affected by the flood

2.- Rice availability just decreased by 15%

Prices evaluation of non-food items
(2018 and 2019 flood season)



A.6.- Severity of impacts on housing, drinking water and access to food

(Categories)

6.a.- Self-regarded Impact of floods on housing

No or limited Impact - < 10% of households lived in evacuation centres or temporary shelters

Moderate Impact- 10%-24% of households lived in evacuation centres or temporary shelters

High Impact - 25%-50% of households lived in evacuation centres or temporary shelters

Severe Impact - >50% of households lived in evacuation centres or temporary shelters

6.b.- Self-regarded Impact on access to safe drinking water

Sufficient or almost sufficient - 10% of households lost access to safe drinking water. Households whose water access was disrupted managed to receive water from external assistance or help within the community

Some shortage - 10%-24% of households lost access to safe drinking water

Moderate shortage - 25%-50% of households lost access to safe drinking water

Extreme shortage - >50% of households lost access to safe drinking water

6.c.- Self-regarded Impact on household access to food

Sufficient or almost sufficient- Food consumption patterns remained normal among all the households. Less than 10% of households had major concerns about satisfying food needs. Households who had difficulty accessing food managed to receive food from external assistance or help within the community

Some shortage- 10%-24% of households limited their food intake and there was concern on running out of food. Most of food markets were accessible, but a few were disrupted

Moderate shortage - 25%-50% of households limited their food intake and ran out of food after 1 week. Most of food markets were not accessible

Extreme shortage - >50% of households limited their food intake. Access to food market was completely disrupted.

6.d.- Self-regarded Impact on Nutrition and Food

rate from 1 to 5

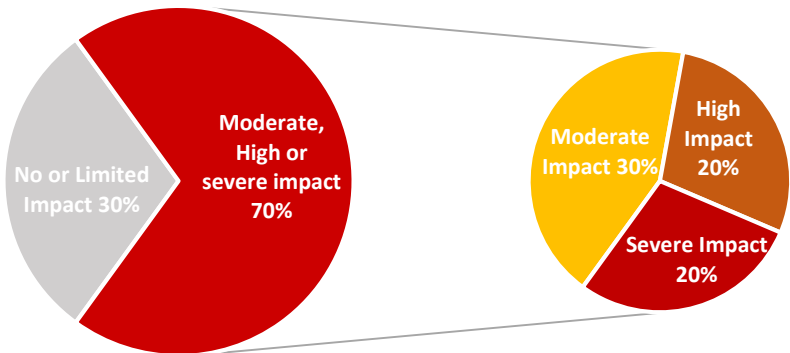
Low 1 - 2

Moderate 3 – 4

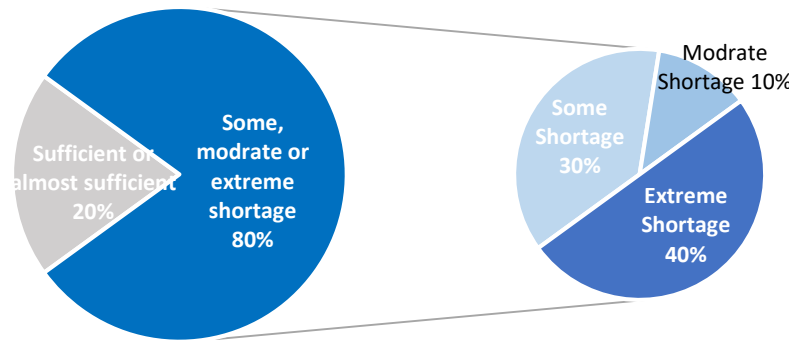
Severe 5

BAGO REGION - Impact of floods on (1) housing, (2) access to safe drinking water, (3) household access to food and Nutrition & Food

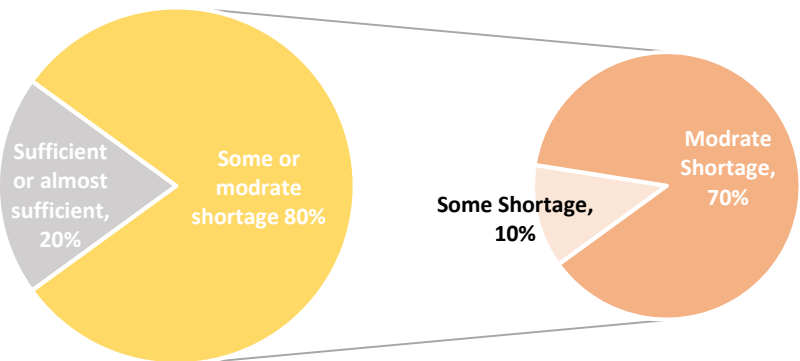
Impact of floods on housing (by % of villages)
Bago Region (n= 10)



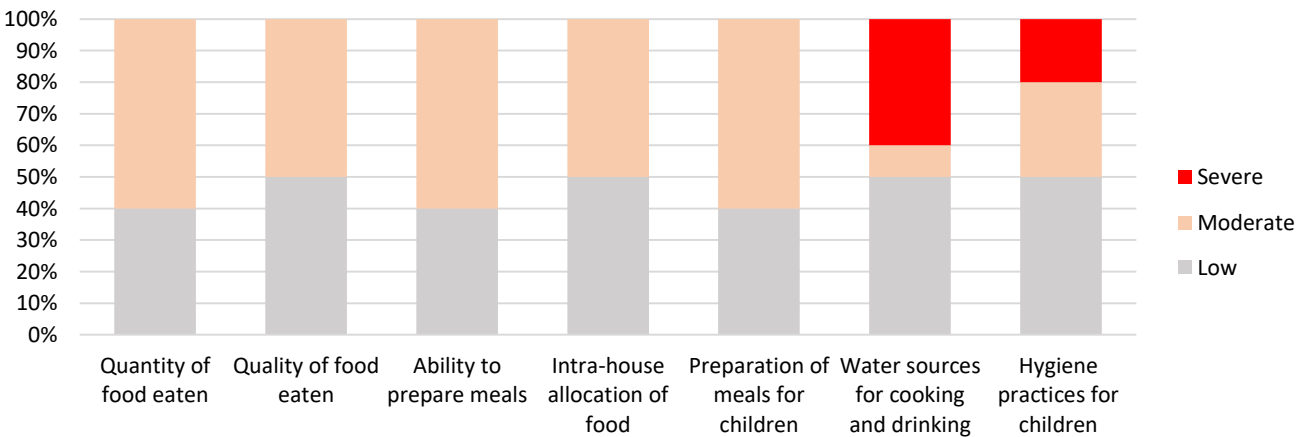
Impact of floods on access to safe drinking water
(by % of villages), Bago Region (n=10)



Impact of floods on access to food
(by % of villages), Bago Region (n=10)

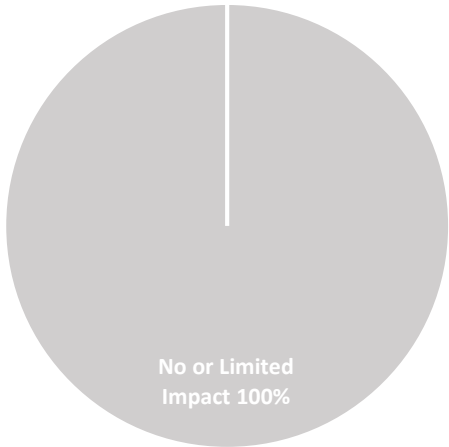


Different flood impacts and severity in Bago Region (by % of villages)

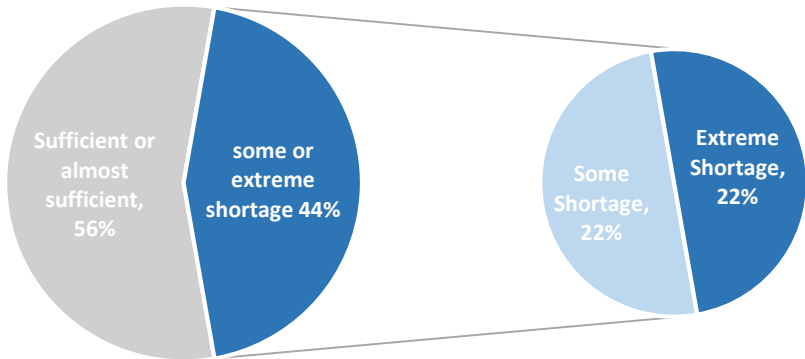


KACHIN STATE - Impact of floods on (1) housing, (2) access to safe drinking water, (3) household access to food and Nutrition & Food

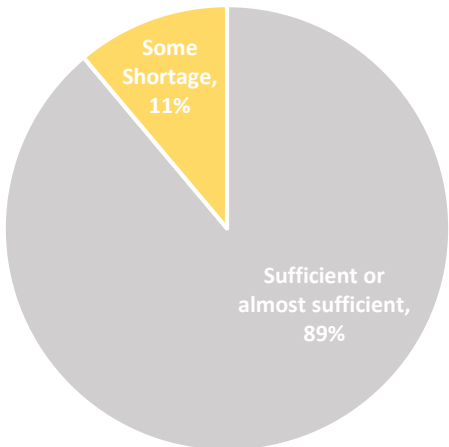
Impact of floods on housing (by % of villages)
Kachin State (n=9)



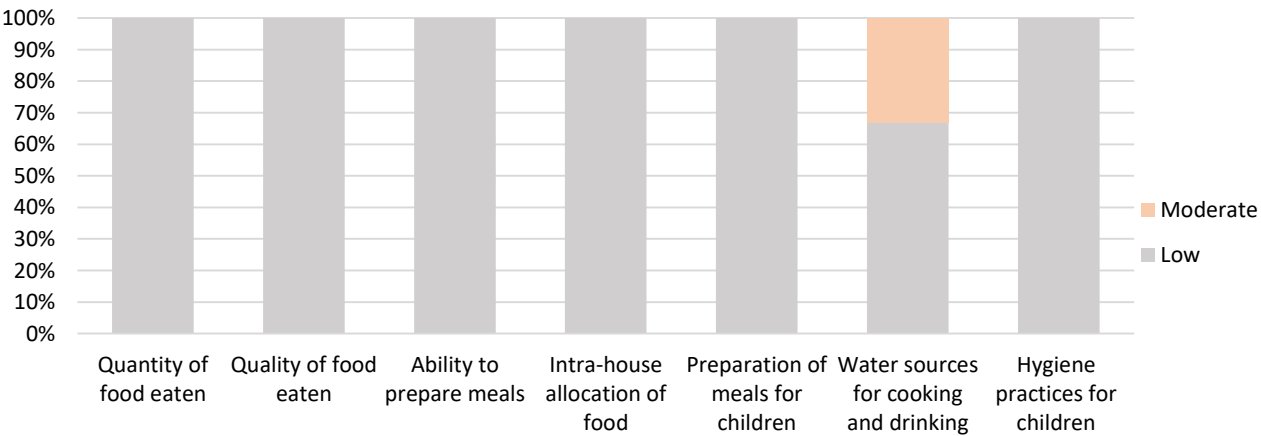
Impact of floods on access to safe drinking water
(by % of villages), Kachin State (n=9)



Impact of floods on access to food
(by % of villages), Kachin State (n=9)

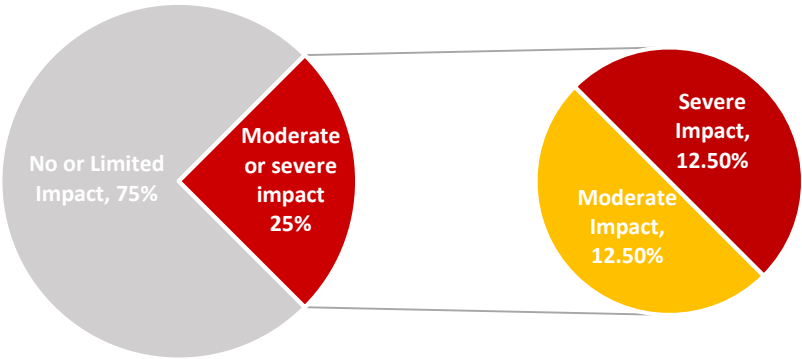


Different impacts and severity in Kachin State (by % of villages)

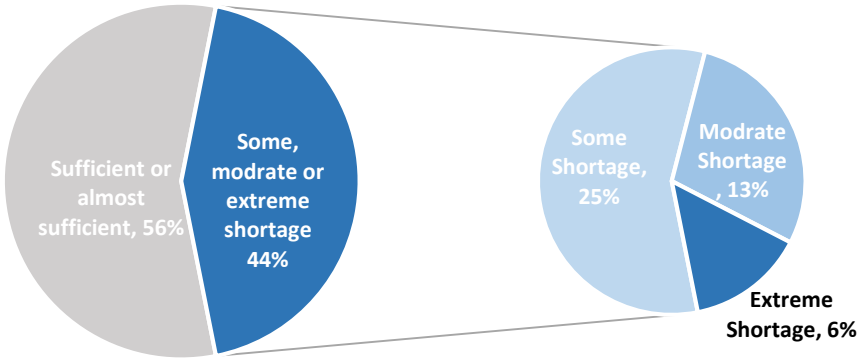


KAYIN STATE - Impact of floods on (1) housing, (2) access to safe drinking water, (3) household access to food and Nutrition & Food

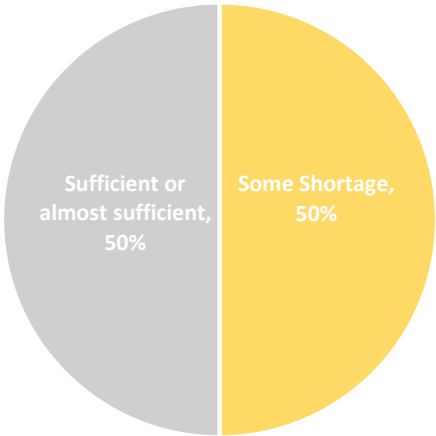
Impact of floods on housing (by % of villages)
Kayin State (n=16)



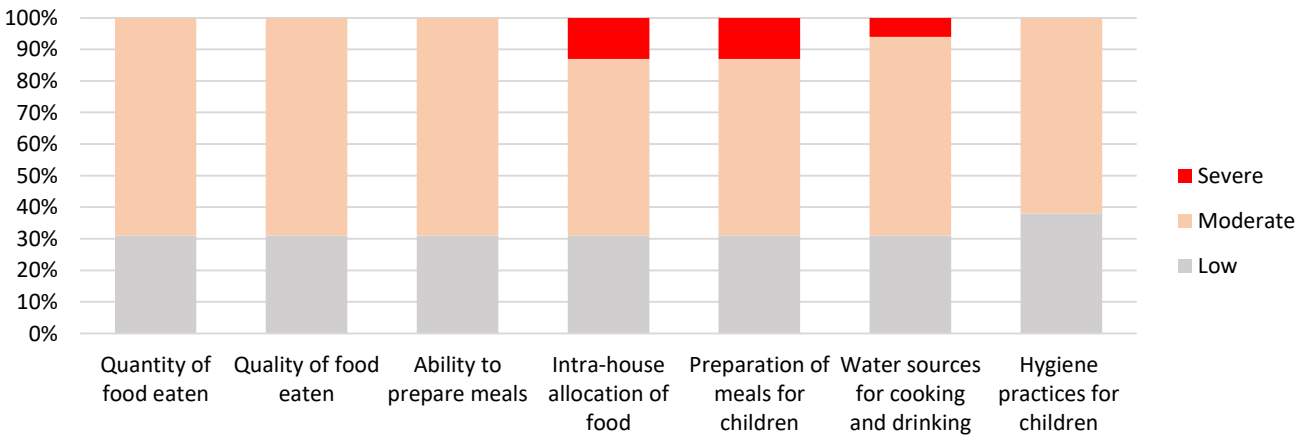
Impact of floods on access to safe drinking water
(by % of villages), Kayin State (n=16)



Impact of floods on access to food
(by % of villages), Kayin State (n=16)

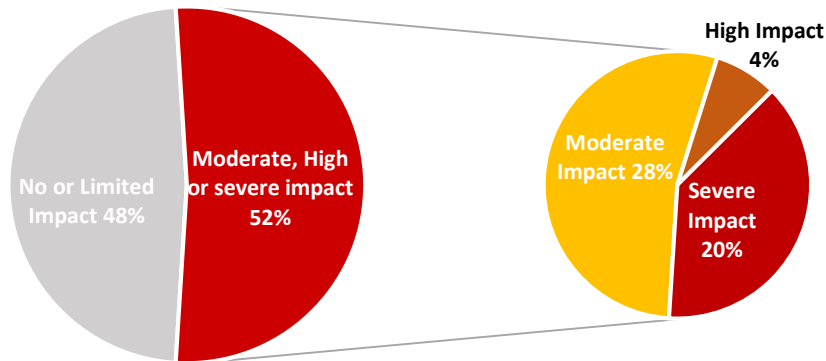


Different impacts and severity in Kayin State (by % of villages)

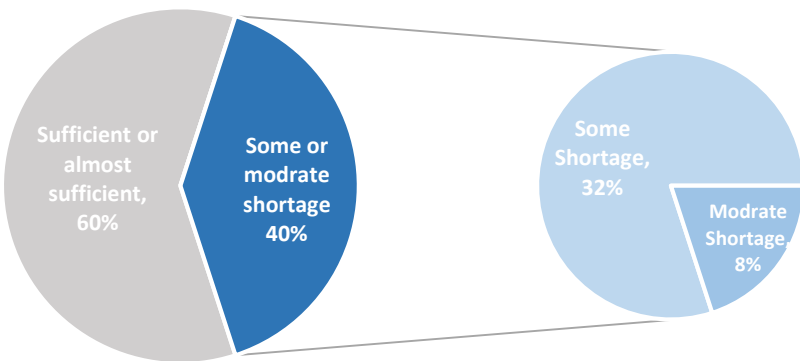


MON STATE - Impact of floods on (1) housing, (2) access to safe drinking water, (3) household access to food and Nutrition & Food

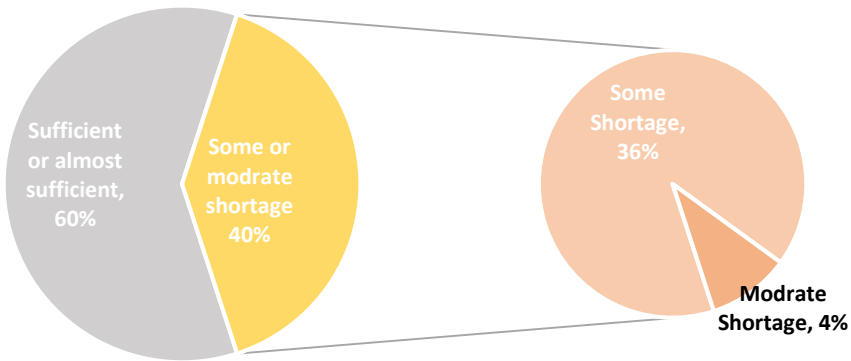
Impact of floods on housing (by % of villages)
Mon State (n=24)



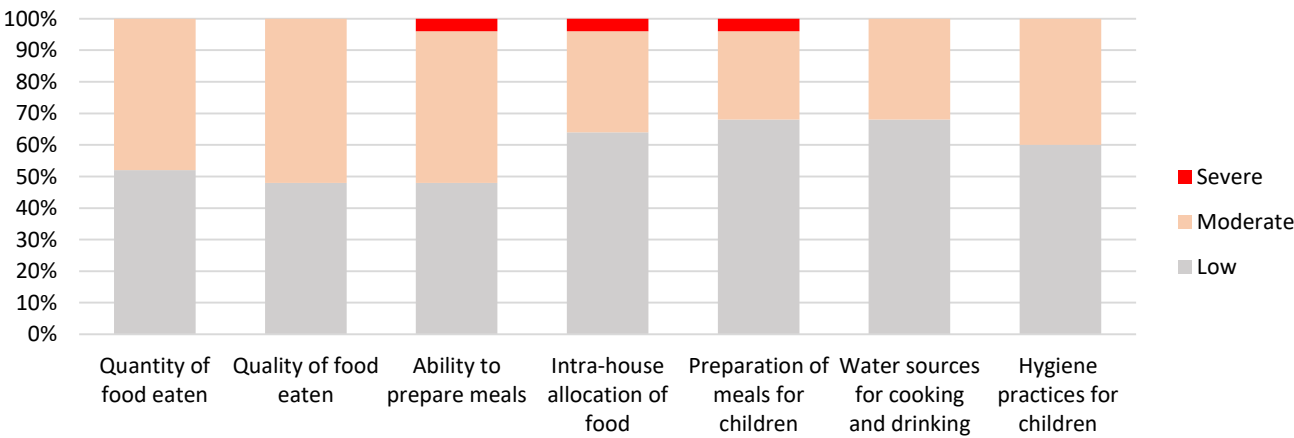
Impact of floods on access to safe drinking water
(by % of villages), Mon State (n=25)



Impact of floods on access to food
(by % of villages), Mon State (n=25)

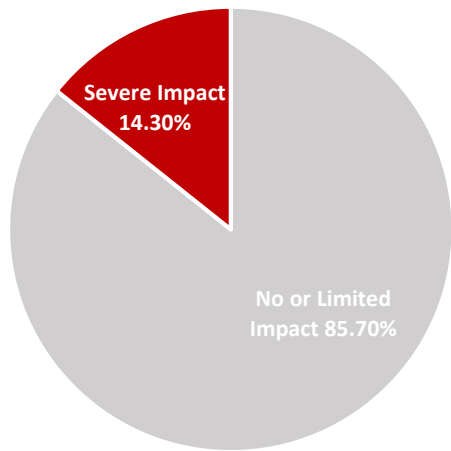


Different impacts and severity in Mon State (by % of villages)

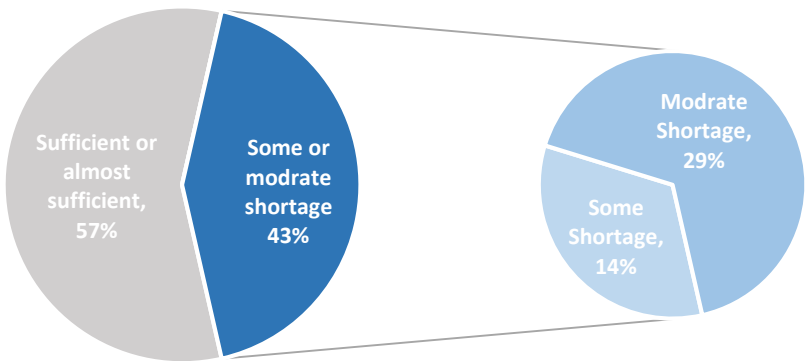


TANINTHARYI REGION - Impact of floods on (1) housing, (2) access to safe drinking water, (3) household access to food and Nutrition & Food

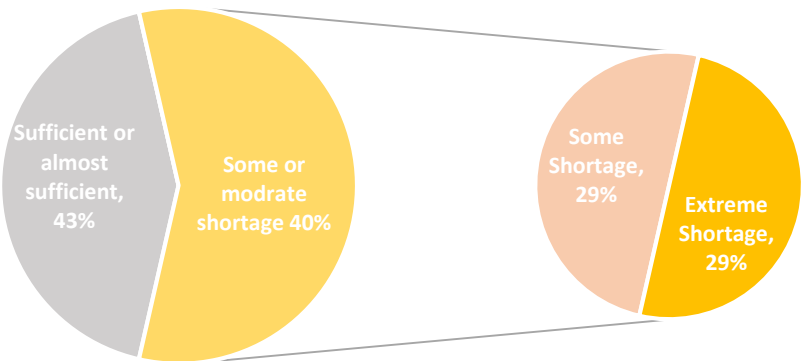
Impact of floods on housing (by % of villages)
Tanintharyi Region (n=7) *



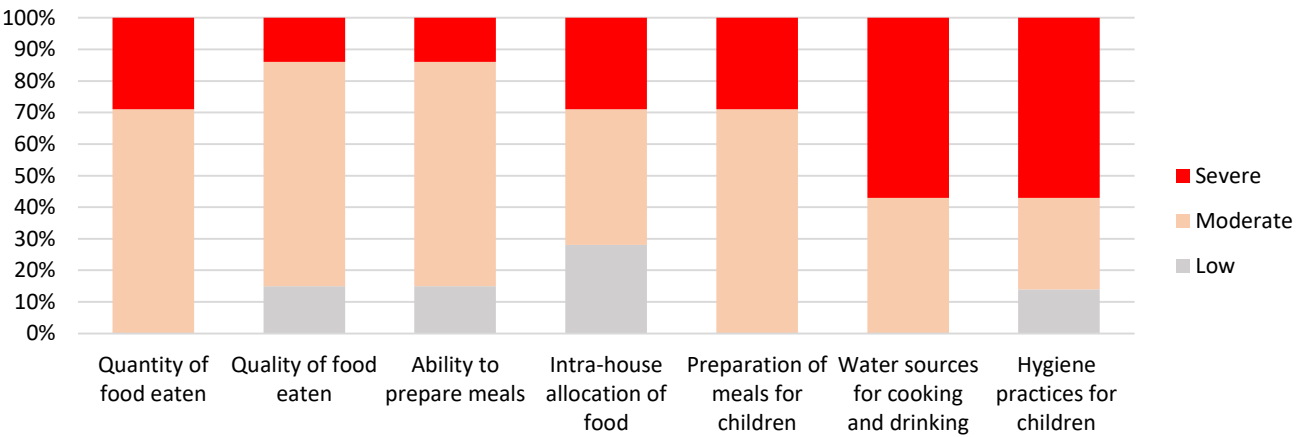
Impact of floods on access to safe drinking water
(by % of villages), Tanintharyi Region (n=7)



Impact of floods on access to food
(by % of villages), Tanintharyi Region (n=7)



Different Impacts and severity in Tanintharyi Regional (by % of villages)



*Additional number of village is required to enable conclusive analysis.
The village selection was however not build to be representative of the differences in townships in Tanintharyi Region.

Summary of impacts: housing, water, food

KACHIN

Housing

No impact

Water

Extreme shortage
22%

Access to food

Minor impact

Other impacts

Minor impact

KAYIN

Housing

Severe 12%

Water

Extreme/moderate 20%

Access to food

Minor impact

Other impacts

Severe in meals
reduction 10%

BAGO

Housing

High/severe
impact 40%

Water

Moderate/Extreme 50%

Access to food

Moderate
shortage 70%

Other impacts

Water sources
40% Hygiene 20%

MON

Housing

High/severe impact
24%

Water

Moderate 8%

Access to food

Moderate 4%

Other impacts

Severe in meals
reduction 5%

TANINTHARYI

Housing

Severe 14%

Water

Moderate 30%

Access to food

Extreme 30%

Other impacts

Severe in meals,
water & hygiene (20-
60%)

A.7.- Flood-triggered Indebtedness

- Most of the villagers reported being forced to take debts to cover the losses, damages and reparations caused by the floods
- Households in the villages use loans for different reasons, but mostly for food, buying agriculture inputs (seeds, tools, etc.) and payment for recovery of the losses.
- Debts are mentioned by 100% of respondents in Bago, Tanintharyi and Kachin.



A.8.- Food security *(concepts)*

Food Consumption Score (FCS)

FCS describes the **current status of the household food consumption**. It is a composite indicator based on dietary diversity, food frequency and nutritional importance of different food groups consumed the seven days before the interview.

Household Dietary Diversity Score (HDDS)

Number of food groups consumed the 24 hours prior to the survey. A low dietary diversity score reflects a poor quality of diet and a high risk of micronutrient deficiency.

Consumption based Coping Strategy (Con Coping)

A series of questions about **how households manage to cope with a shortfall in food for consumption**. It is calculated using a series of questions using a 7day recall period.

Livelihood based Coping Strategies (LH Coping)

The livelihoods based coping strategies module is used to better understand **longer term coping capacity of households**. For all livelihood based coping strategies, the recall period is set at the previous 30 days.

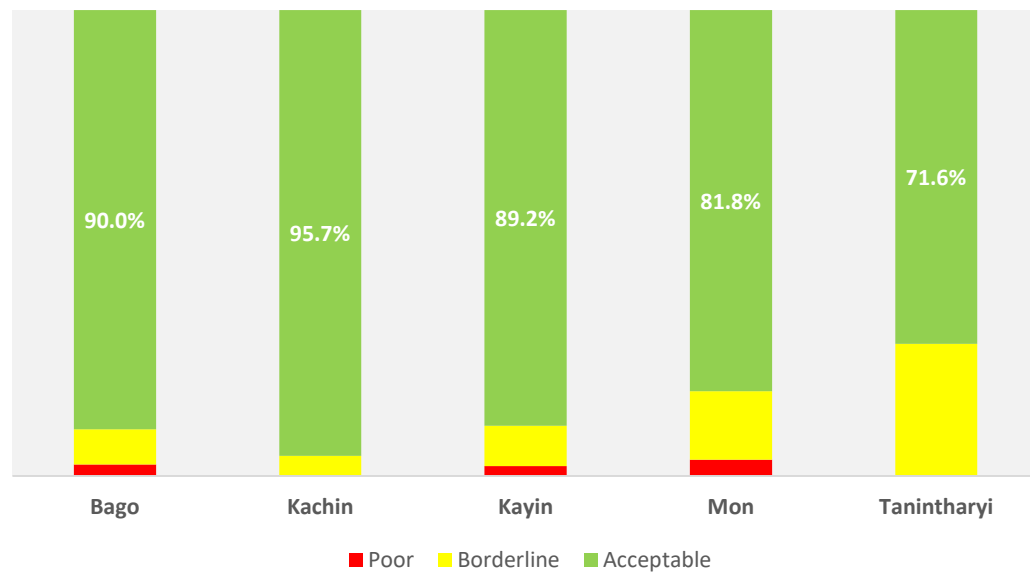
Stress strategies indicate a reduced ability to deal with future shocks as the result of a current reduction in resources or increase in debts.

Crisis strategies are often associated with the direct reduction of future productivity.

Emergency strategies also affect future productivity, but are more difficult to reverse or more dramatic in nature than crisis strategies.

A.8.- Food security

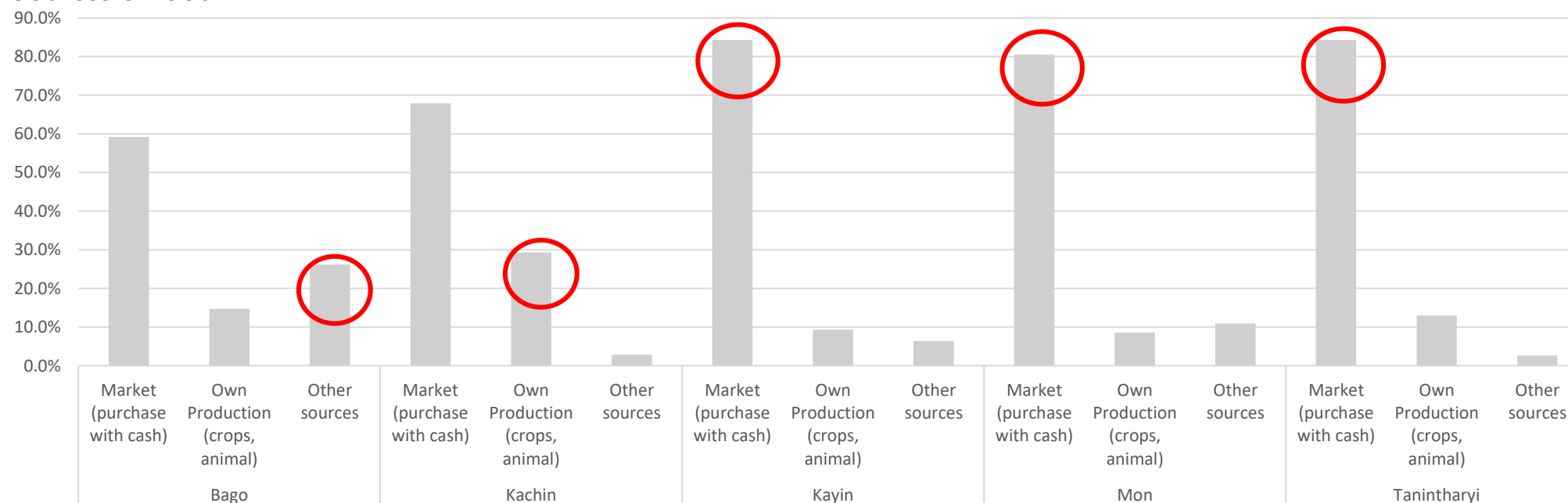
a.8.i.- Food Consumption* (recall period 7 days)



*FCS describes the **current status of the household food consumption**. It is a composite indicator based on dietary diversity, food frequency and nutritional importance of different food groups consumed the seven days before the interview.

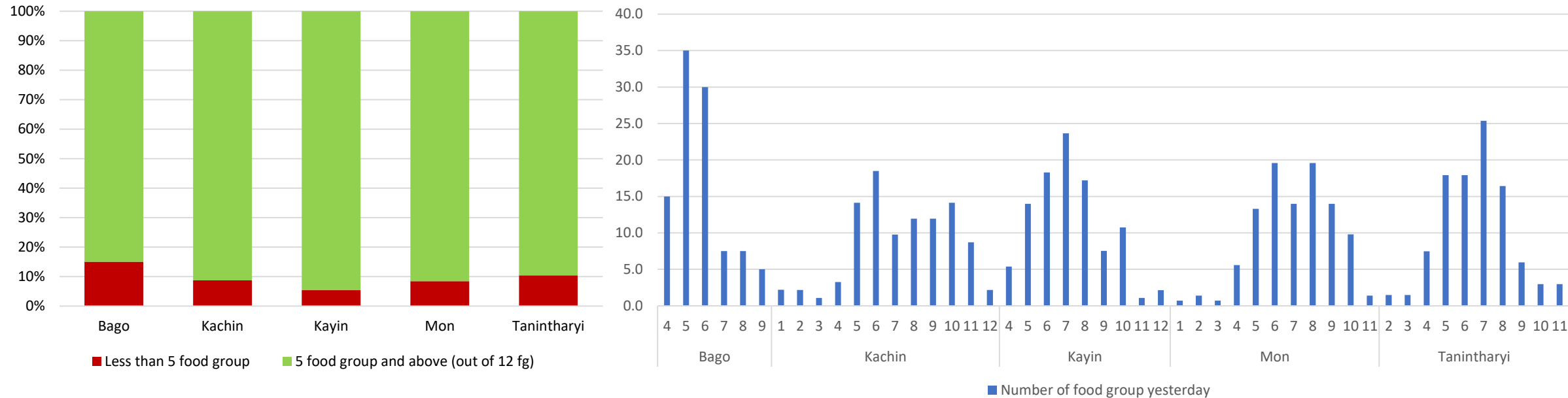
1. FCS is good in Bago, Kachin and Kayin.
2. However, almost 20% of HHs in Mon and 30% in Tanintharyi have borderline or poor.
3. In both states, purchasing food in the market is the dominant source of food (80%), being own production and other sources marginally relevant.
4. In Kachin, own production is quite relevant (30%) whereas other sources (gifts) are in Bago (25%).

Sources of food



A.8.- Food security

a.8.ii.- Dietary Diversity (recall period 24 hr)



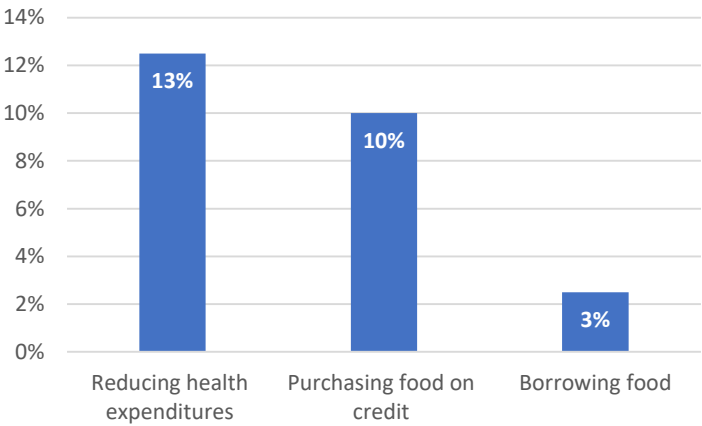
HH Food group diversity scores for yesterday (out of 12 groups)

1. When HDD indicator is used, Bago and Tanintharyi emerge as the S/R where poor dietary diversities are higher (15% and 10%).
2. When the number of food groups are considered, Bago clearly stands out as the region with worst dietary diversity (65% ate only 5-6 groups).

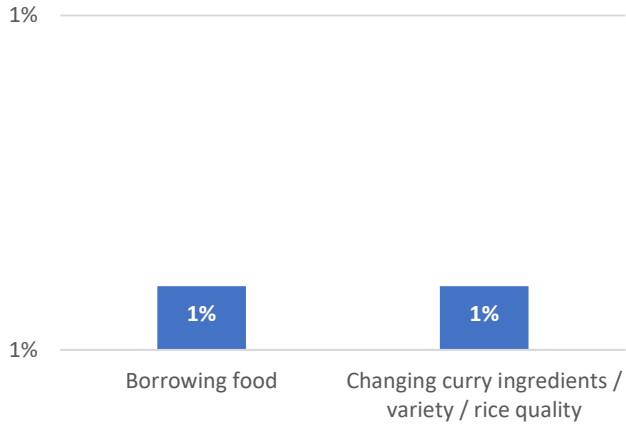
A.8.- Food security

a.8.iii.- Consumption Coping Mechanisms

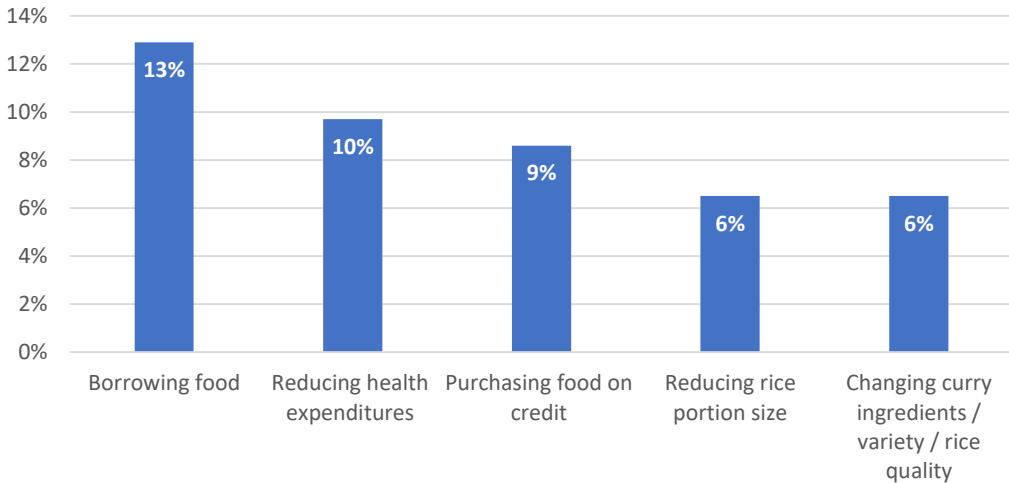
Bago Region



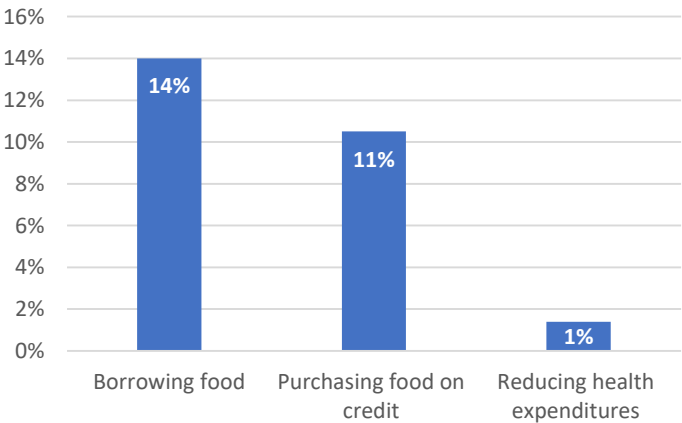
Kachin State



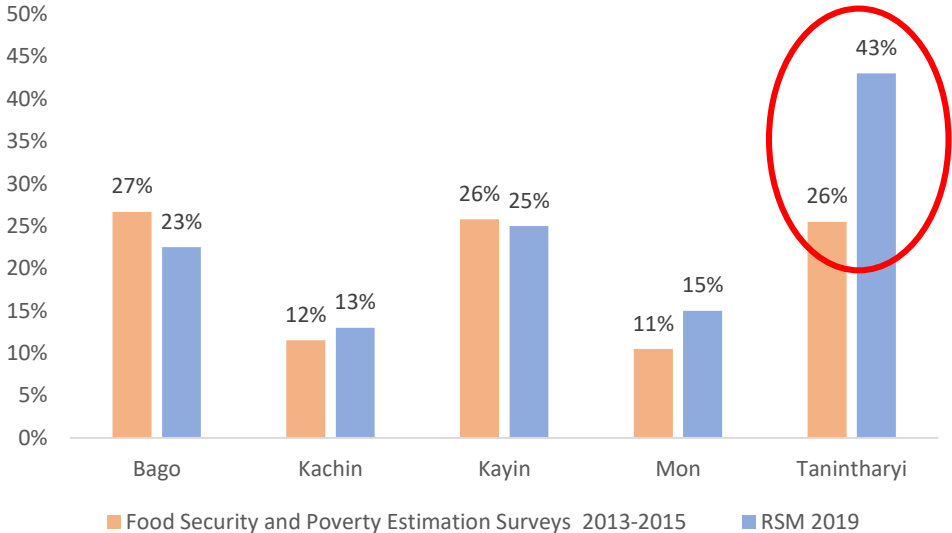
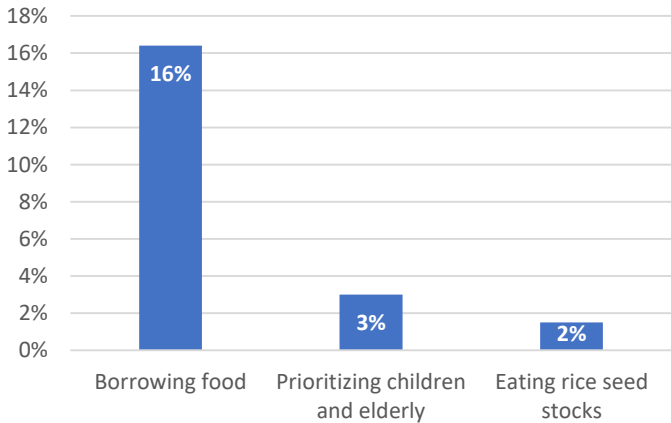
Kayin State



Mon State



Tanintharyi Region



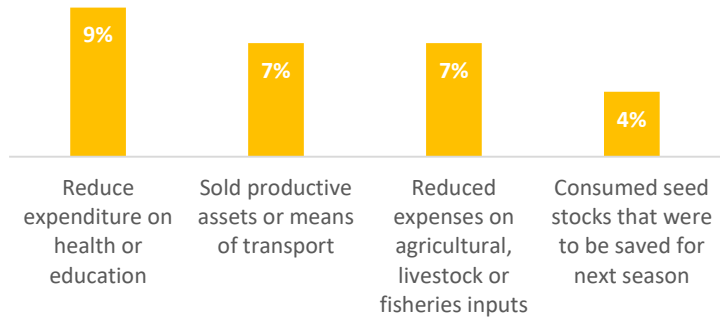
Households were engaging food based coping strategies such as borrowing food (16 percent in Tanintharyi, 14 percent in Mon and 13 percent in Kayin), purchase food on credit(11 percent in Mon, 10 percent in Bago and 9 percent in Kayin), Reducing health expenditures (13 percent in Bago, 10 percent in Kayin).

8.- Food security

a.8.iv.- Livelihood Coping Mechanisms

S/R	#of hhs
Bago	40
Kachin	92
Kayin	93
Mon	143
Tanintharyi	67

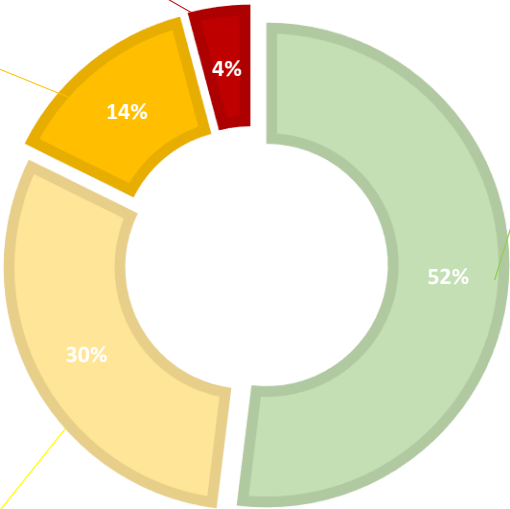
Crisis strategies: directly reduce future productivity



Emergency strategies: affect future productivity, but are more difficult to reverse

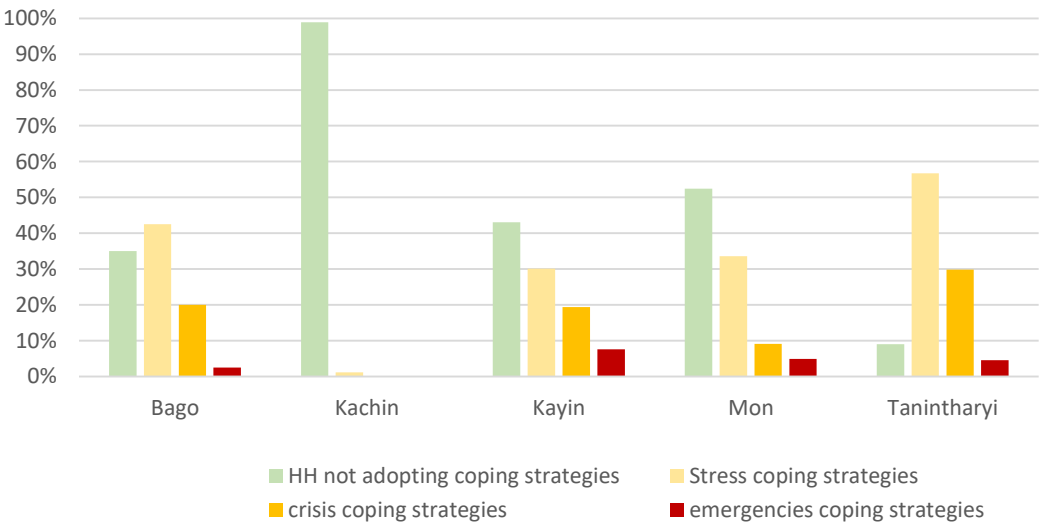
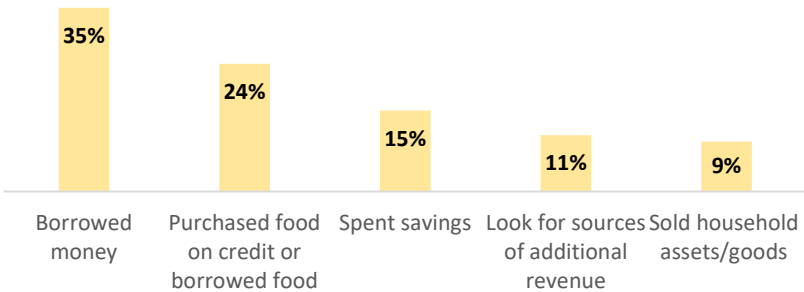


No strategies employed



- Overall 48% households used a coping strategy in last 30 days.

Stress strategies: reduce the ability to cope with future shocks



Summary of Food Security indicators

KACHIN

Indebted by flood

Almost all

FCS

Very low

HDD

Lower than 10%

Consumption Coping mechanisms

Not used

Livelihood Coping mechanisms

Not used

KAYIN

Indebted by flood

Less than 80%

FCS

Very low

HDD

Lower than 10%

Consumption Coping mechanisms

Borrowing food (13%), reducing health (10%)

Livelihood Coping mechanisms

57% using them

BAGO

Indebted by flood

Almost all

FCS

Very low

HDD

15% inadequate

Consumption Coping mechanisms

Reducing health expenditures (13%), food on credit (10%)

Livelihood Coping mechanisms

65% using them

MON

Indebted by flood

Less than 80%

FCS

20% borderline/poor

HDD

5% inadequate

Consumption Coping mechanisms

Borrowing food (14%), food on credit (11%)

Livelihood Coping mechanisms

47% using them

TANINTHARYI

Indebted by flood

Almost all

FCS

30% borderline/poor

HDD

Lower than 10%

HDD

10% inadequate

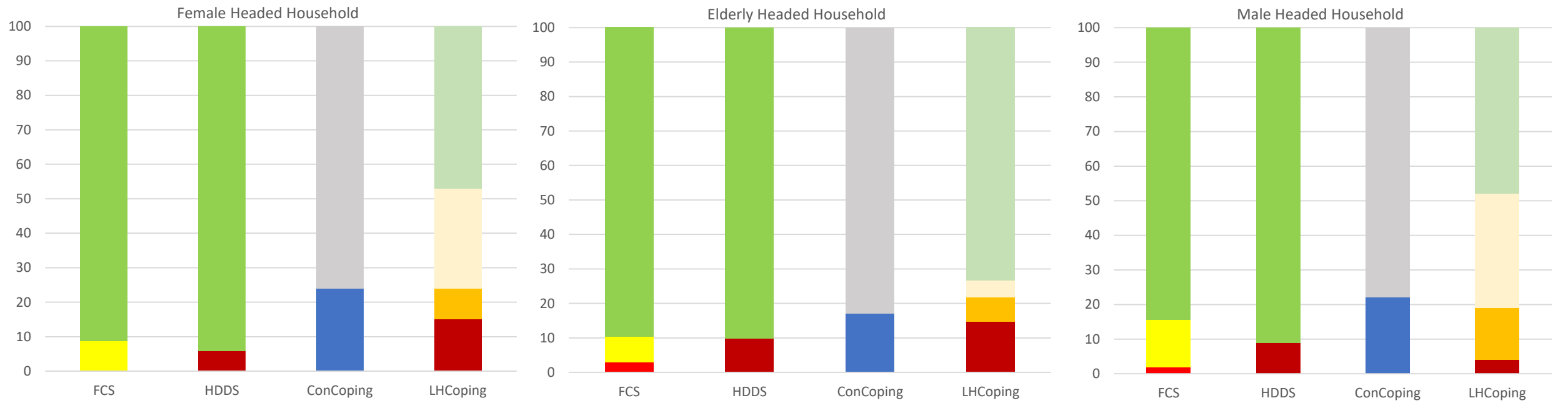
Consumption Coping mechanisms

Borrowing food (16%)

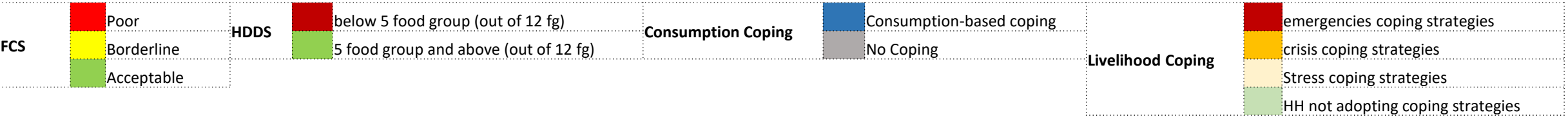
Livelihood Coping mechanisms

92% using them

A.9.- Food security situation by Type of Household Head



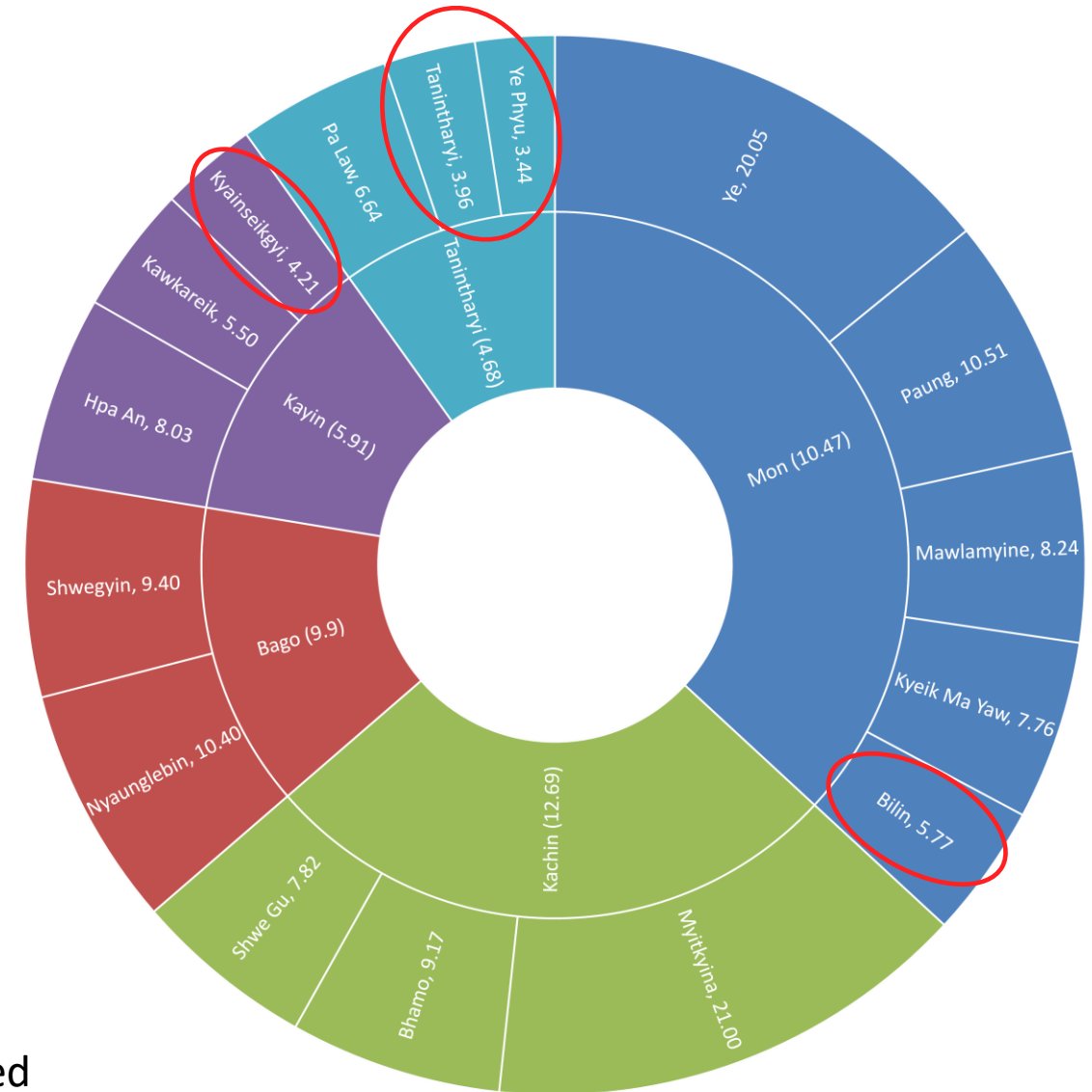
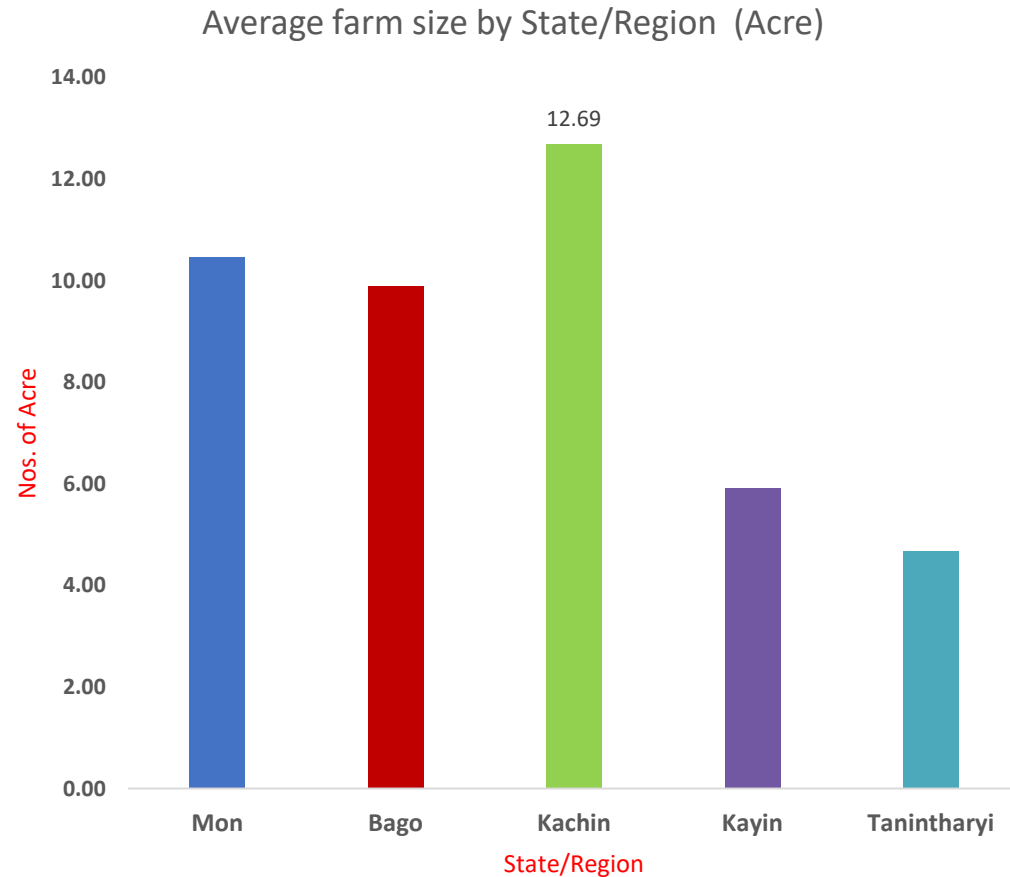
Female Headed HH	8%
Elderly Headed HH	9%
Male Headed HH	83%



B.- AGRICULTURAL SECTION

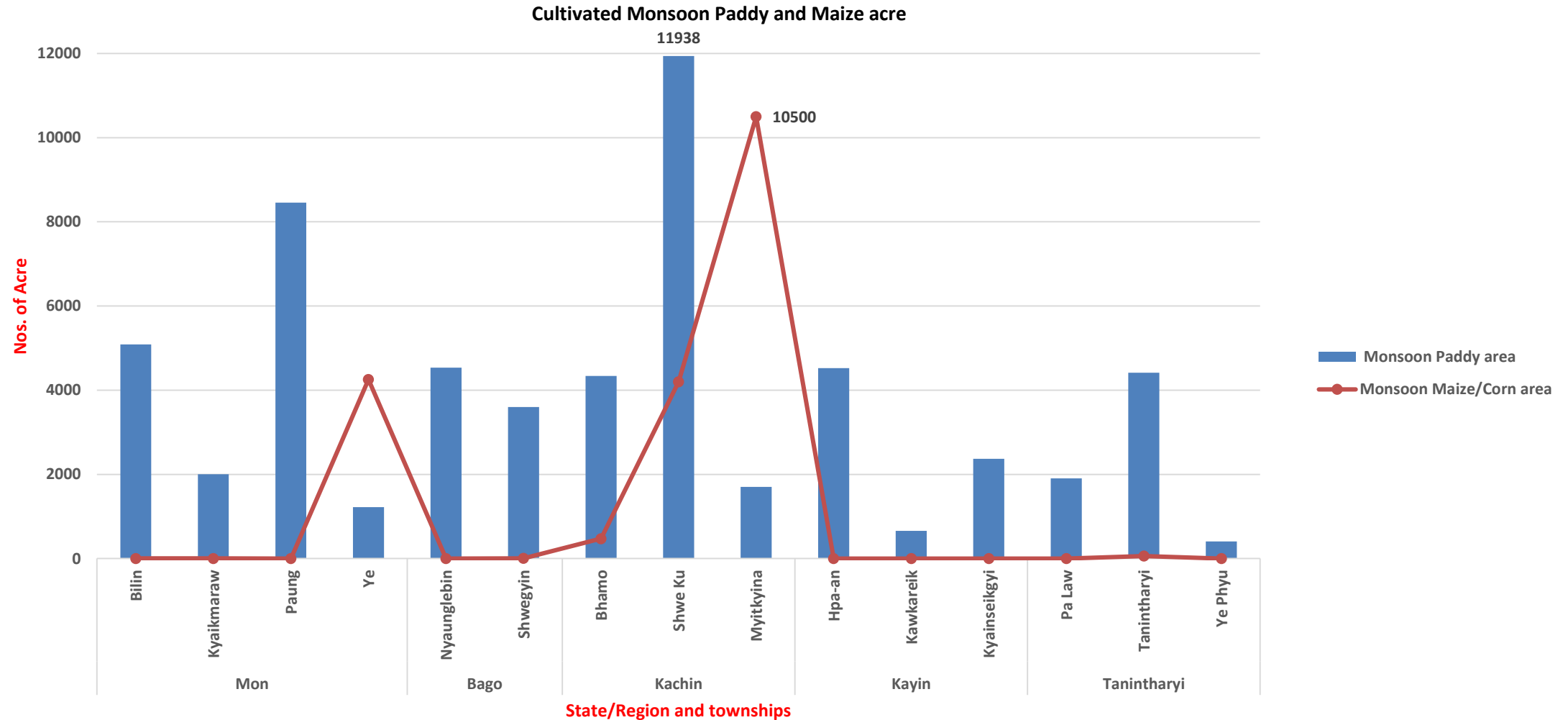


B.1.- Average Farm size by state and townships (RSM household questionnaires)



Average Farm size is calculated based on the household interviewed in assessed villages and is not representative of the overall average for the States/Regions.

B.2.- Major types of crops: Monsoon Paddy and Maize cultivated area in the assessed townships of 5 States/Regions *(RSM villages profile questionnaires)*



In the RSM assessed villages, Paddy and Maize are the main crops cultivated.

B.3.- Crop Calendars

(RSM villages profile questionnaires)

Crop Calendar (Paddy) in Bago

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Bago	Nyaunglebin	Chaung Kyoe	Chaung Kyoe						Paddy						
Bago	Nyaunglebin	Gyaung Tar	Gyaung Tar	Paddy				Paddy							
Bago	Nyaunglebin	Inn Chaung	Inn Chaung												
Bago	Nyaunglebin	Pein Za Loke	Pein Za Loke						Paddy						
Bago	Nyaunglebin	Thaung Gyi	Thaung Gyi						Paddy						
Bago	Shwegyin	Htaung Laung	Htaung Laung						Paddy						
Bago	Shwegyin	Ma Bee	Ma Bee Taung Thu Kone					Paddy							
Bago	Shwegyin	Sa Lu Chaung	Sa Lu Chaung							Paddy					
Bago	Shwegyin	Son Kone	Son Kone	Paddy					Paddy						
Bago	Shwegyin	Than Seik	Than Seik Ywar Ma	Paddy											

Crop Calendar (Paddy) in Kachin

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Kachin	Bhamo	Kaung Tone	Kaung Tone						Paddy						
Kachin	Bhamo	Moe Phein	Moe Phein						Paddy						
Kachin	Bhamo	Nant Hpar	Nant Hpar						Paddy						
Kachin	Bhamo	Tar Hmine Lone	Tar Hmine Lone						Paddy						
Kachin	Shwe Ku	Nga Pat Gyi	Nga Pat Gyi						Paddy						
Kachin	Shwe Ku	Tein Hun	Tein Hun					Paddy							
Kachin	Shwe Ku	Tha Yet Kone	Tha Yet Kone						Paddy						
Kachin	Winemaw	San Kin	San Kin						Paddy						
Kachin	Winemaw	Tar Law Gyi	Tar Law Gyi						Paddy						

The crop calendar (Paddy) of RSM assessed village in Bago and Kachin

Crop Calendar (Pulses) in Bago

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Bago	Nyaunglebin	Chaung Kyoe	Chaung Kyoe	Pulses									Pulses		
Bago	Nyaunglebin	Gyaung Tar	Gyaung Tar	Pulses										Pulses	
Bago	Nyaunglebin	Inn Chaung	Inn Chaung	Pulses											
Bago	Nyaunglebin	Pein Za Loke	Pein Za Loke	Pulses										Pulses	
Bago	Nyaunglebin	Thaung Gyi	Thaung Gyi	Pulses									Pulses		
Bago	Shwegyin	Htaung Laung	Htaung Laung	Pulses										Pulses	
Bago	Shwegyin	Ma Bee	Ma Bee Taung Thu Kone	Pulses								Pulses			
Bago	Shwegyin	Sa Lu Chaung	Sa Lu Chaung									Pulses			
Bago	Shwegyin	Son Kone	Son Kone	Pulses									Pulses		
Bago	Shwegyin	Than Seik	Than Seik Ywar Ma	Pulses										Pulses	

Crop Calendar (Pulses) in Kachin

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Kachin	Bhamo	Kaung Tone	Kaung Tone	Pulses								Pulses			
Kachin	Bhamo	Moe Phein	Moe Phein									Pulses			
Kachin	Bhamo	Nant Hpar	Nant Hpar									Pulses			
Kachin	Bhamo	Tar Hmine Lone	Tar Hmine Lone	Pulses											
Kachin	Shwe Ku	Nga Pat Gyi	Nga Pat Gyi	Pulses											
Kachin	Shwe Ku	Tein Hun	Tein Hun	Pulses							Pulses				
Kachin	Shwe Ku	Tha Yet Kone	Tha Yet Kone	Pulses								Pulses			
Kachin	Winemaw	San Kin	San Kin	Pulses									Pulses		
Kachin	Winemaw	Tar Law Gyi	Tar Law Gyi	Pulses									Pulses		

The crop calendar (Pulses) of RSM assessed village in Bago and Kachin

Crop Calendar (Vegetable) in Bago

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Bago	Nyaunglebin	Chaung Kyoe	Chaung Kyoe												
Bago	Nyaunglebin	Gyaung Tar	Gyaung Tar												
Bago	Nyaunglebin	Inn Chaung	Inn Chaung												
Bago	Nyaunglebin	Pein Za Loke	Pein Za Loke												
Bago	Nyaunglebin	Thaung Gyi	Thaung Gyi												
Bago	Shwegyin	Htaung Laung	Htaung Laung	Vegetable									Vegetable		
Bago	Shwegyin	Ma Bee	Ma Bee Taung Thu Kone	Vegetable					Vegetable						
Bago	Shwegyin	Sa Lu Chaung	Sa Lu Chaung								Vegetable				
Bago	Shwegyin	Son Kone	Son Kone												
Bago	Shwegyin	Than Seik	Than Seik Ywar Ma												

Crop Calendar (Vegetable) in Kachin

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Kachin	Bhamo	Kaung Tone	Kaung Tone	Vegetable											
Kachin	Bhamo	Moe Phein	Moe Phein	Vegetable											
Kachin	Bhamo	Nant Hpar	Nant Hpar	Vegetable											
Kachin	Bhamo	Tar Hmine Lone	Tar Hmine Lone	Vegetable											
Kachin	Shwe Ku	Nga Pat Gyi	Nga Pat Gyi	Vegetable											
Kachin	Shwe Ku	Tein Hun	Tein Hun	Vegetable											
Kachin	Shwe Ku	Tha Yet Kone	Tha Yet Kone	Vegetable											
Kachin	Winemaw	San Kin	San Kin	Vegetable											
Kachin	Winemaw	Tar Law Gyi	Tar Law Gyi	Vegetable											

The crop calendar (Vegetable) of RSM assessed village in Bago and Kachin

B.4.- Hazards Calendar

(RSM villages profile questionnaires)

Sample of Hazard calendar in Bago

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Bago	Nyaunglebin	Chaung Kyoe	Chaung Kyoe	Pest infestataion				Cyclone			Flood		Pest infestataion		
Bago	Nyaunglebin	Gyaung Tar	Gyaung Tar								Cyclone/ Flood			Pest infestataion	
Bago	Nyaunglebin	Inn Chaung	Inn Chaung			Pest infestataion					Flood			Pest infestataion	
Bago	Nyaunglebin	Pein Za Loke	Pein Za Loke	Pest infestation							Flood/Pest Infestation				
Bago	Nyaunglebin	Thaung Gyi	Thaung Gyi	Pest Infestation							Flood	Cyclone		Cyclone/ Pest infestation	
Bago	Shwegyin	Htaung Laung	Htaung Laung	Pest infestataion								Flood	Pest infestataion		
Bago	Shwegyin	Ma Bee	Ma Bee Taung Thu Kone	Pest infestataion								Cyclone/ Flood		Pest infestataion	
Bago	Shwegyin	Sa Lu Chaung	Sa Lu Chaung									Flood		Pest infestataion	
Bago	Shwegyin	Son Kone	Son Kone	Pest infestataion								Flood		Pest Infestation	
Bago	Shwegyin	Than Seik	Than Seik Ywar Ma					Fire			Flood			Cyclone/ Pest infestation	

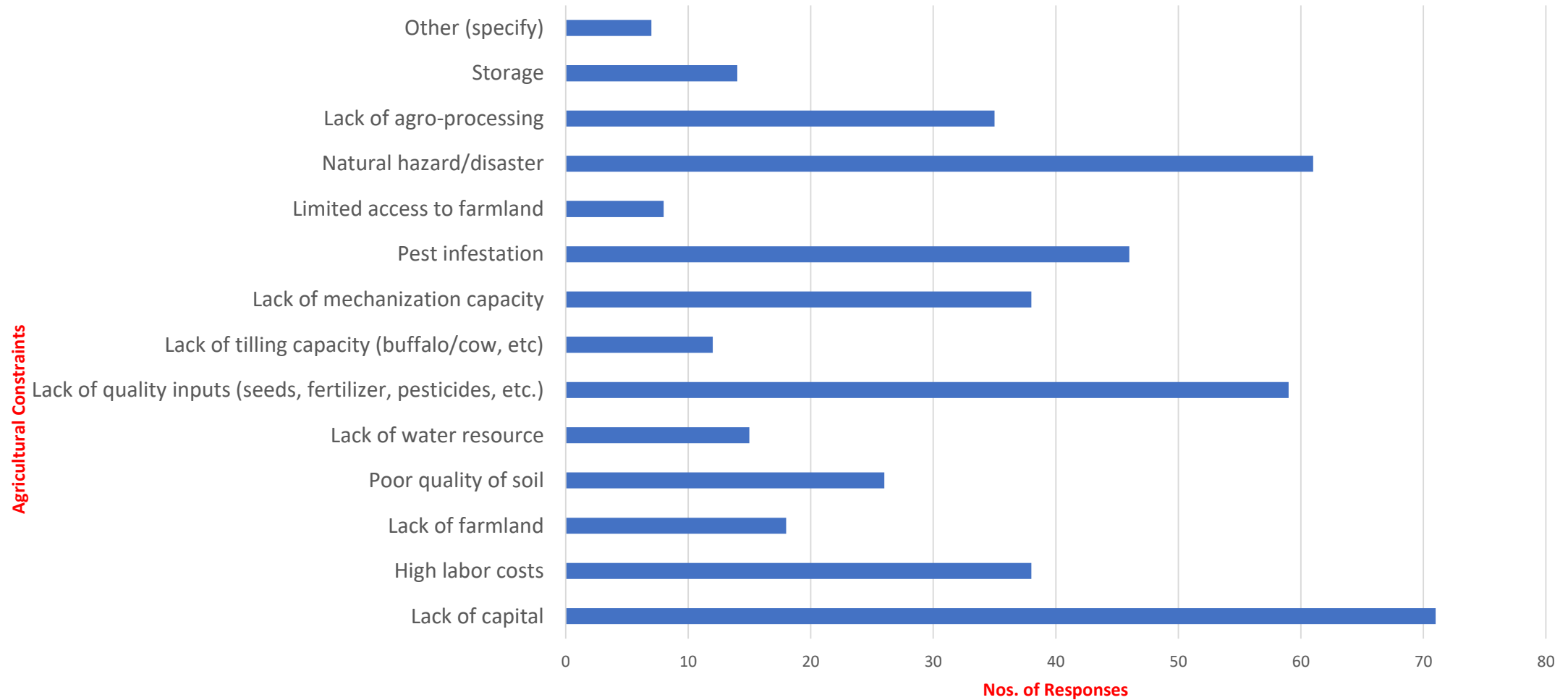
Sample of Hazard calendar in Kachin

Location and Date/State and Region	Location and Date/Township	Location and Date/Village Tract or Urban	Location and Date/Village or Ward	January	February	March	April	May	June	July	August	September	October	November	December
Kachin	Bhamo	Kaung Tone	Kaung Tone	Pest infestataion							High Temperature/ Cyclone/ Flood			Pest infestataion	
Kachin	Bhamo	Moe Phein	Moe Phein			High Temperature		Cyclone	High Temperature		Flood	Pest infestataion			
Kachin	Bhamo	Nant Hpar	Nant Hpar			High Temperature		Cyclone	High Temperature		Flood	Pest infestataion			
Kachin	Bhamo	Tar Hmine Lone	Tar Hmine Lone					High Temperature			Cyclone/ Flood/ Pest infestataion				Cyclone
Kachin	Shwe Ku	Nga Pat Gyi	Nga Pat Gyi					Cyclone			Flood/ Pest infestataion				
Kachin	Shwe Ku	Tein Hun	Tein Hun	Pest infestataion				High Temperature		Cyclone	Flood		Cyclone		Pest infestataion
Kachin	Shwe Ku	Tha Yet Kone	Tha Yet Kone	Pest infestataion				Cyclone/ High Temperature			Flood				Pest infestataion
Kachin	Winemaw	San Kin	San Kin								High Temperature/ Flood				
Kachin	Winemaw	Tar Law Gyi	Tar Law Gyi					Cyclone		High Temperature	Flood				

The crop calendar (Hazard) of RSM assessed village in Bago and Kachin

B.5.a Agricultural Constraints in affected States/Regions

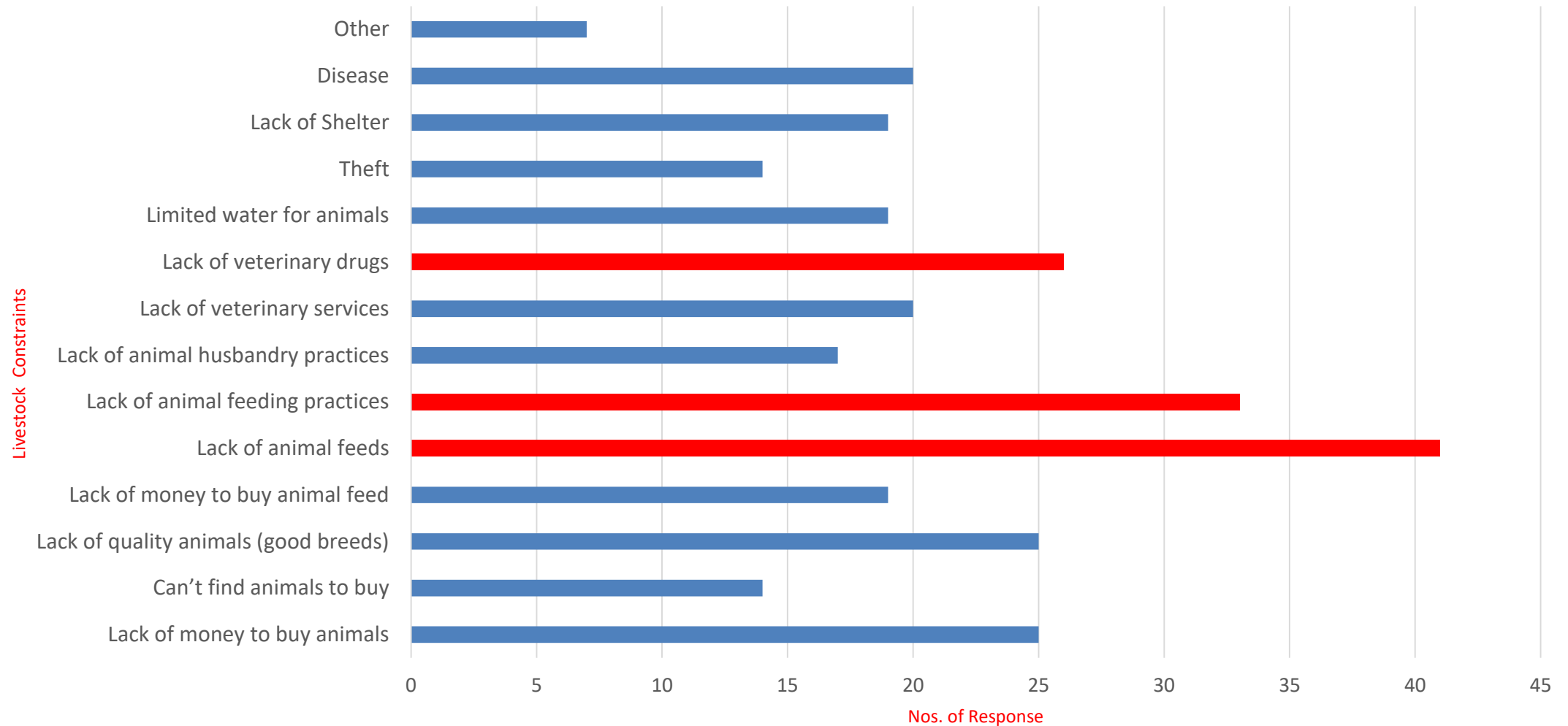
(RSM villages profile questionnaires)



Lack of Capital, Natural hazard/disaster and Lack of quality inputs are the main constraints in agricultural production.

B.5.b.- Livestock Constraints in Affected States/Regions

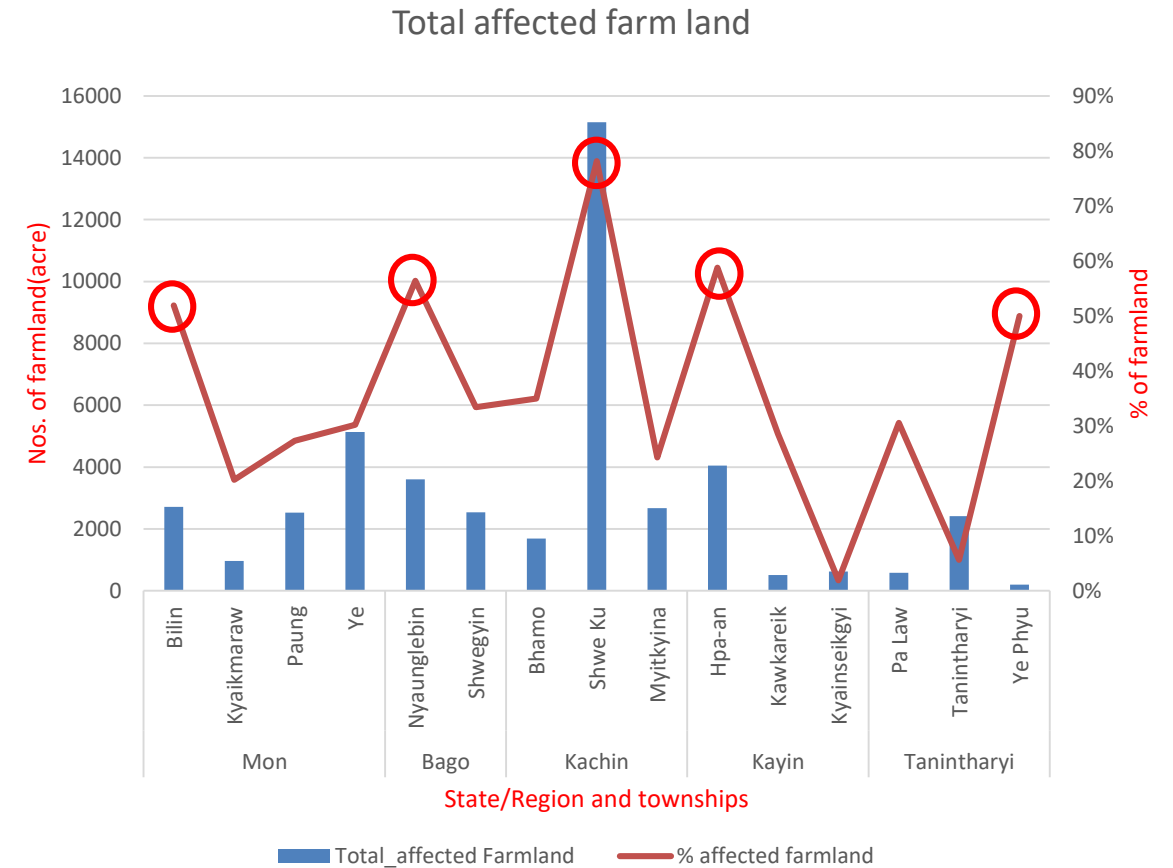
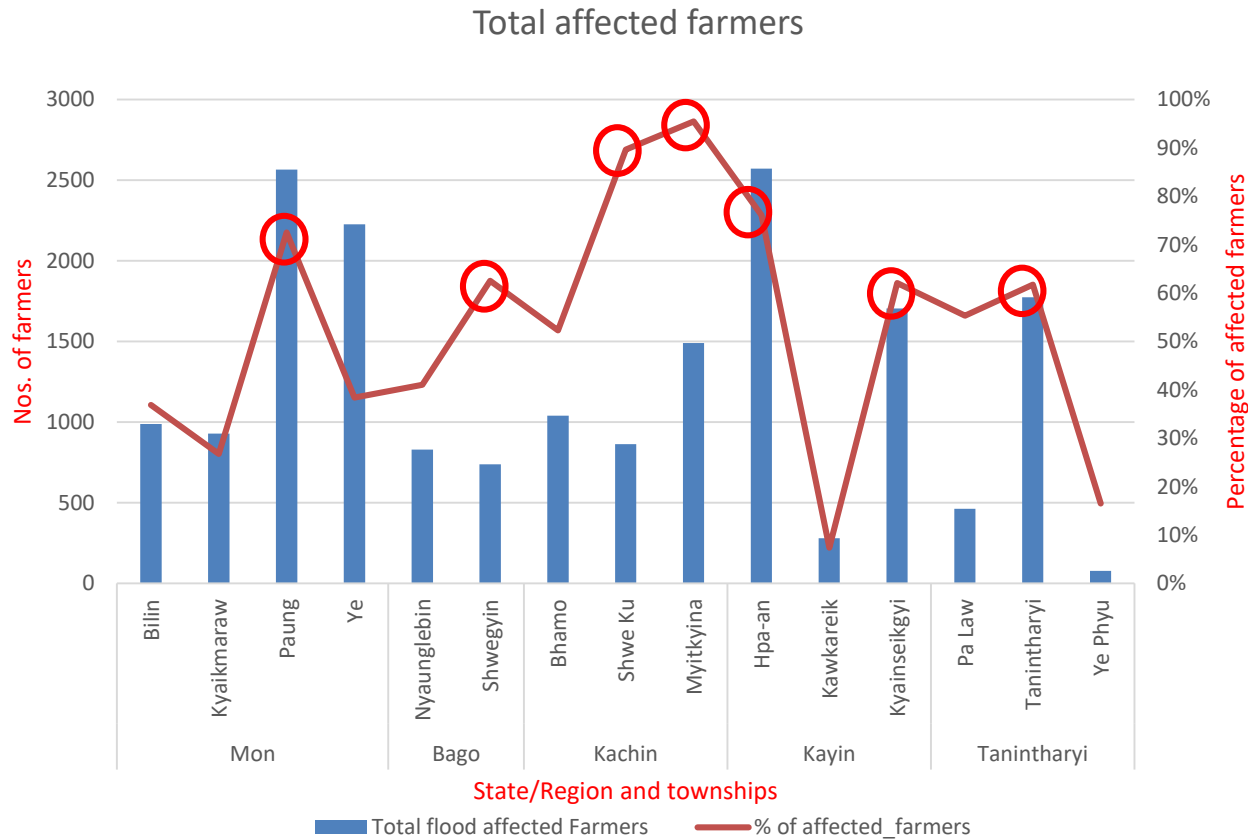
(RSM villages profile questionnaires)



Lack of animal feed, poor animal feeding practices and lack of veterinary drugs are the main constraints in livestock raising sector.

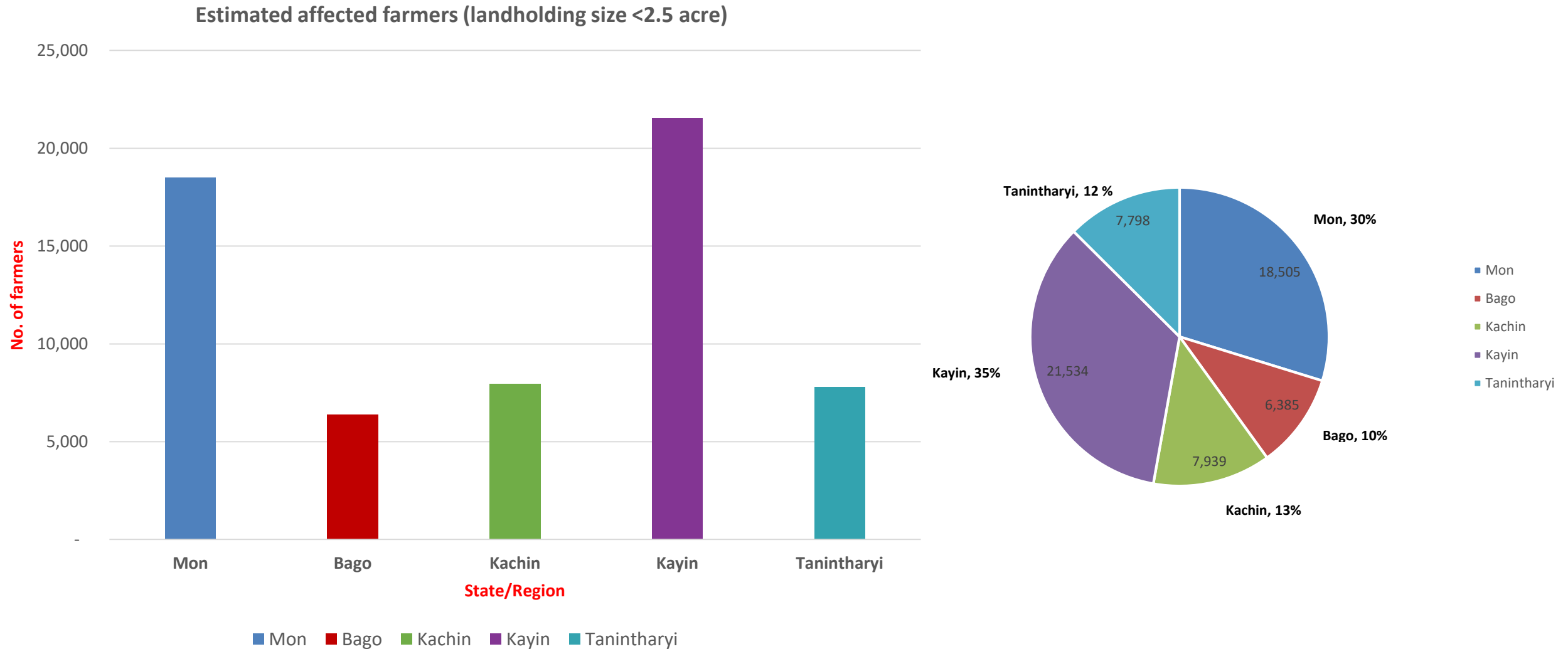
B.6.a.- Affected farmers and affected farm land in assessed villages

(RSM villages profile questionnaires)



- ❑ Approximately, 18,000 farmers or more than 50% of the total number of farmers in the flooded areas have been affected
- ❑ Some 45,378 acres of farmland or about 30% of the total farmland was affected.

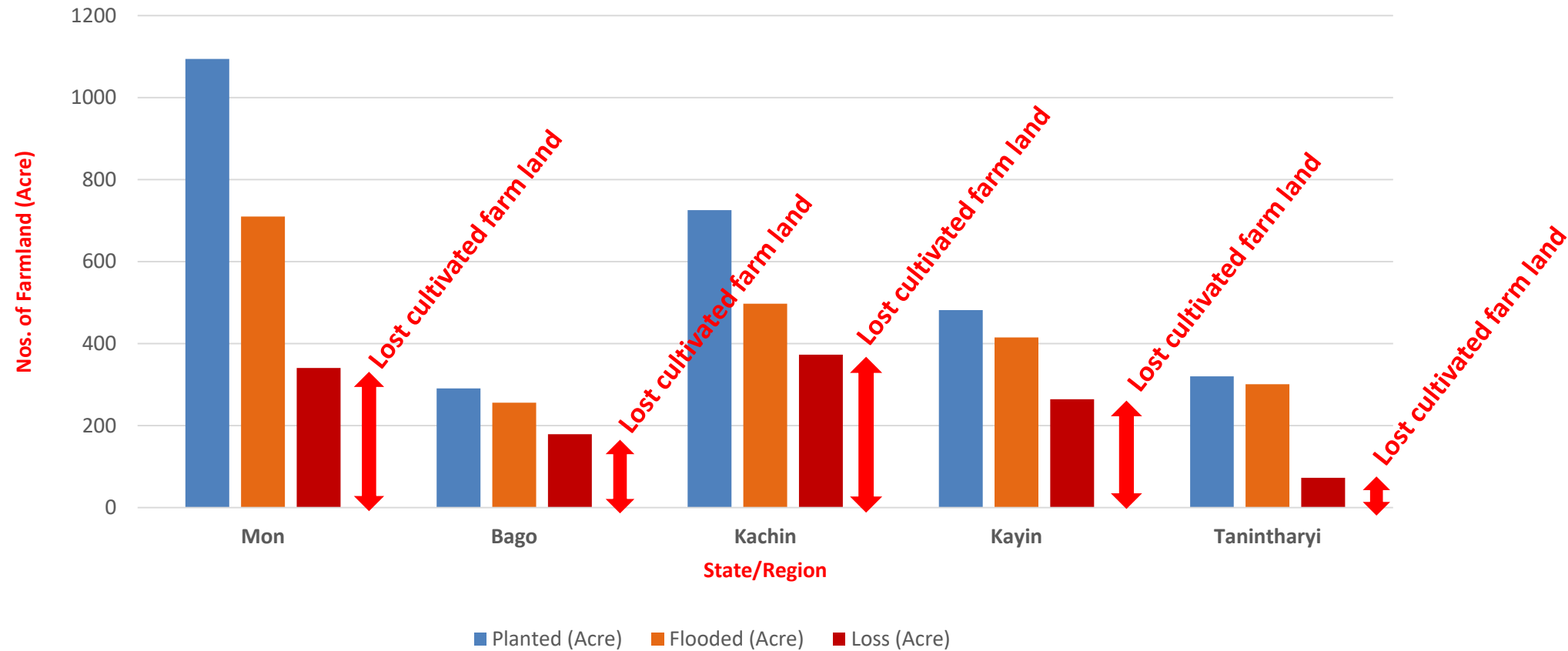
B.6.c.- Estimated*affected farmers (landholding size <2.5 acre) *(Agricultural statistic year book (2017-18))*



An estimated **62,000** small scale farmers have been affected by the flood.

*Extrapolated using the Ministry of agriculture data for other townships

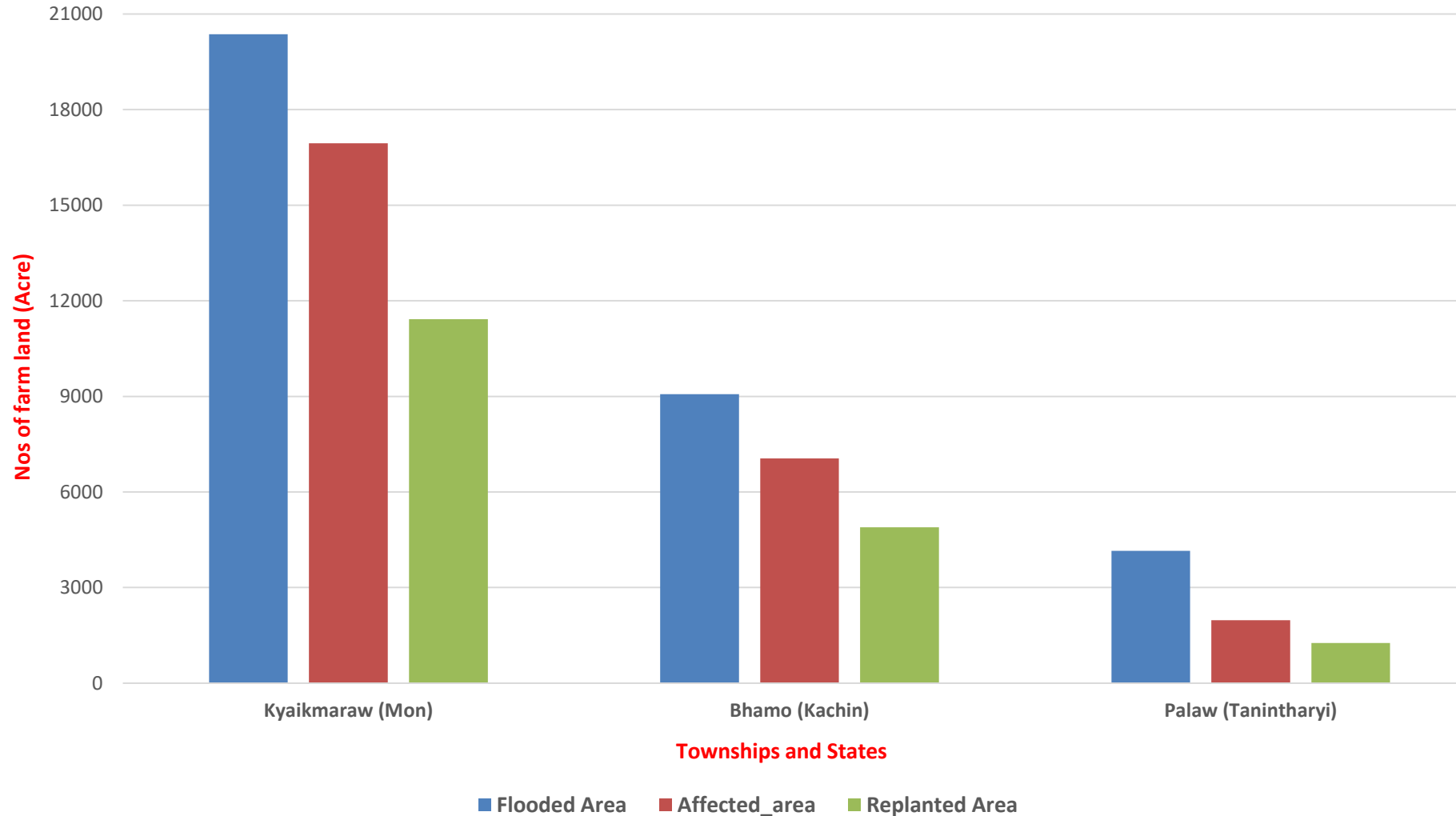
B.7.- Planted, flooded and lost farmland



- 75% of farmland were flooded
- 42% of farmland damaged
- *Data calculated from household interviews in assessed villages

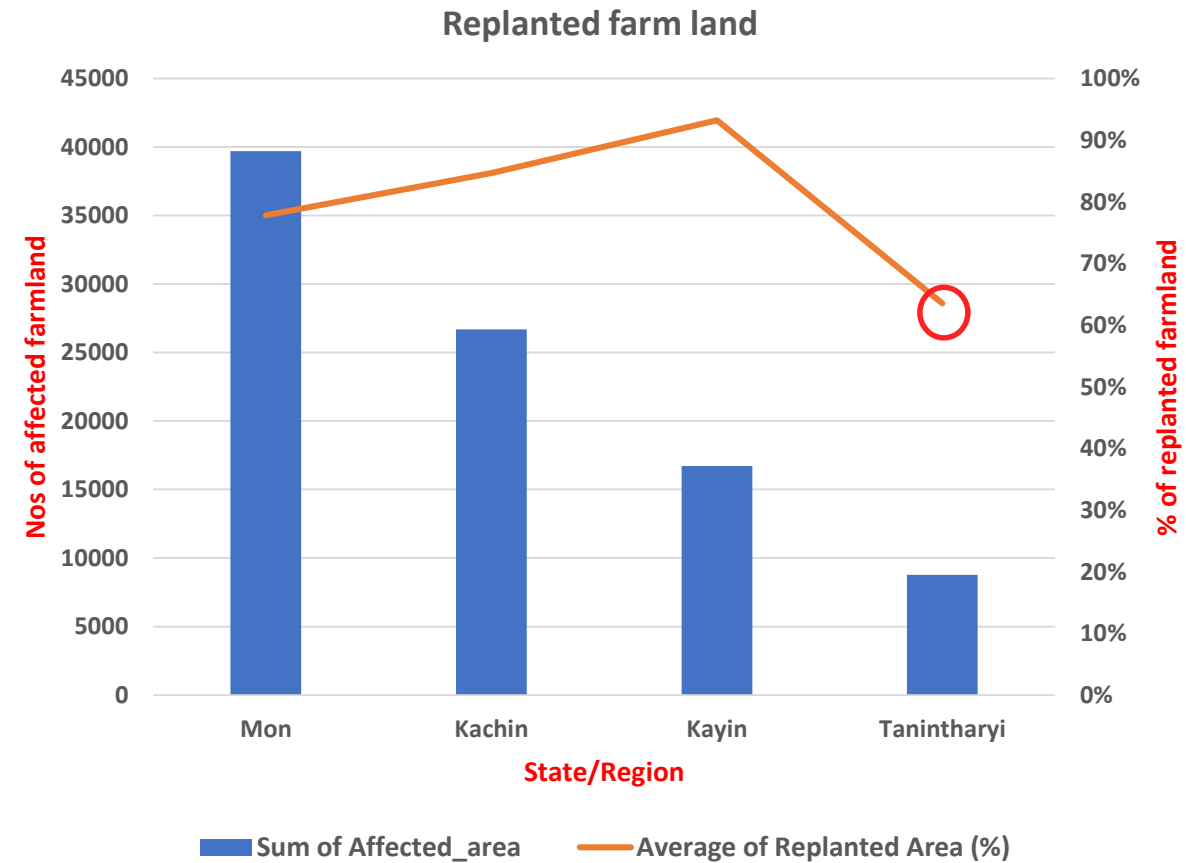
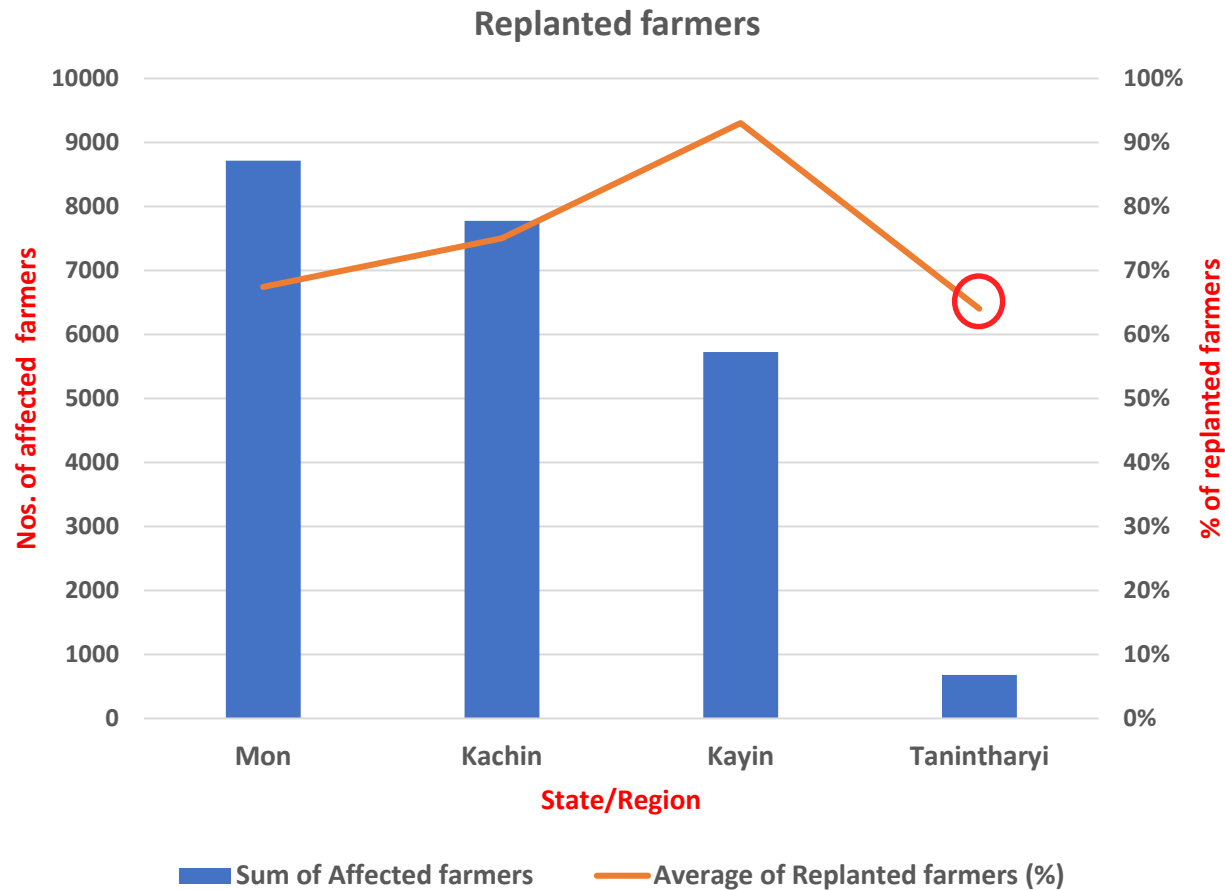
B8.Replantation and related costs

B.8.a.- Replantation in flood affected Townships



Source: Department of Agriculture(DoA)

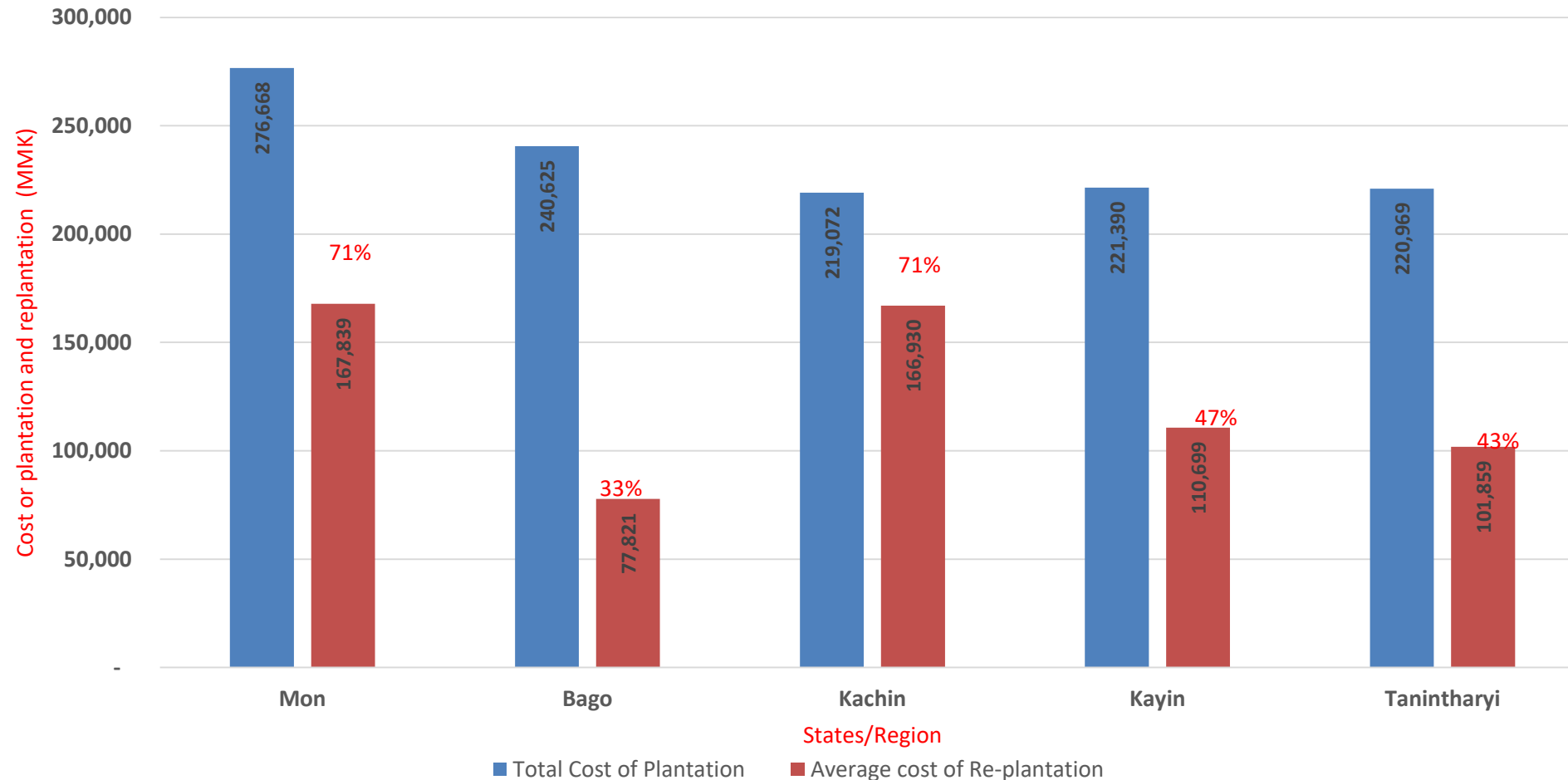
B.8.c.- Farmers that replanted and farmland



Approximately, 75% of farmers were encouraged to replant their crops by the floods

Source: Department of Agriculture(DoA)

B.8.b.- Cost of Plantation and replantation



Flood affected farmers had to spend on average additional 150,000 MMK for replantation. Therefore the production cost of one acre of paddy will be approximately 390,000 MMK. To cover the cost of production, the farmer should harvest at least 80 baskets per acre.

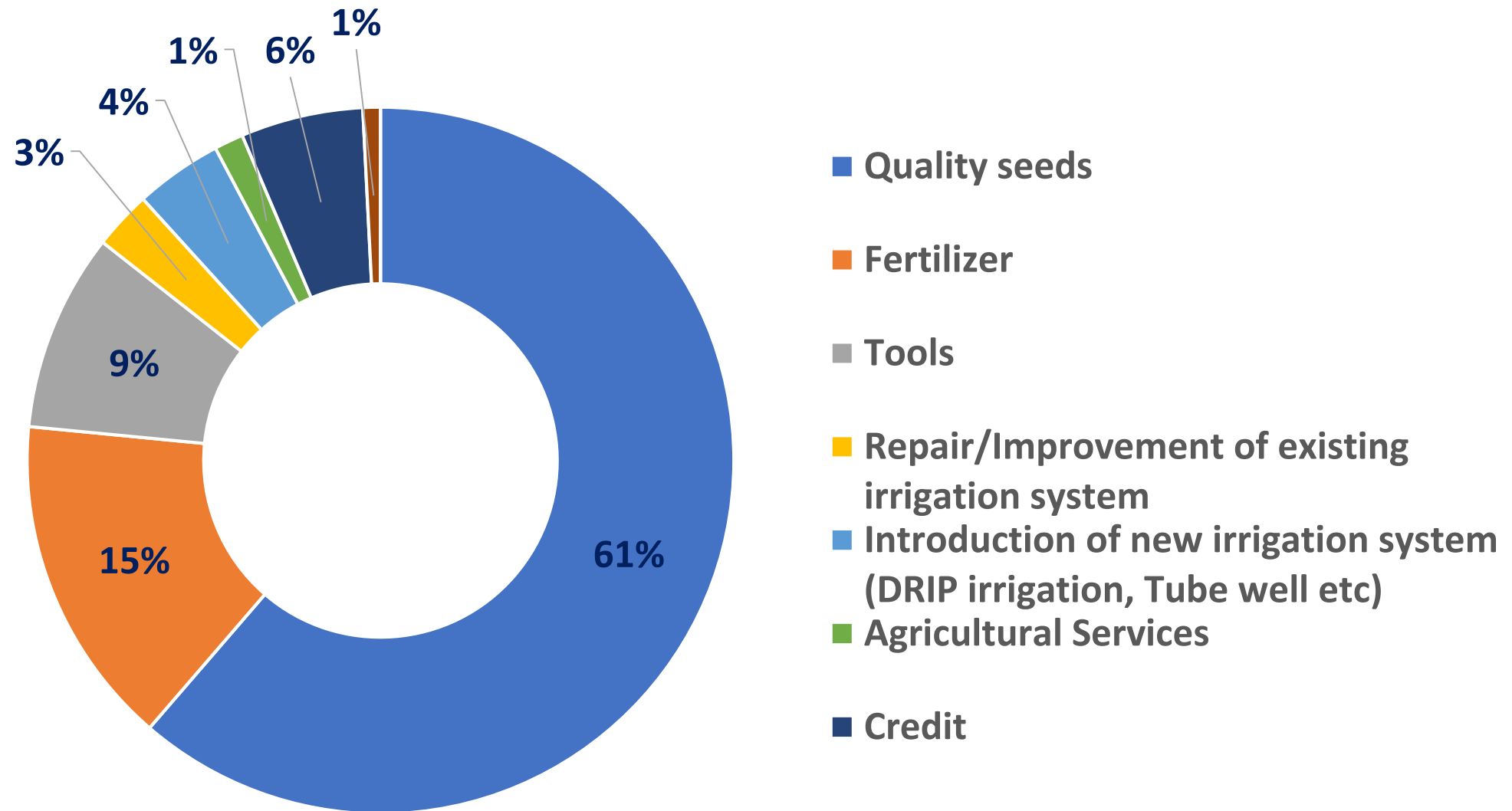
Source: Department of Agriculture(DoA)

Summary of Flood Impact on Agriculture

KACHIN	KAYIN	BAGO	MON	TANINTHARYI
Affected farmers 75%	Affected farmers 45%	Affected farmers 48%	Affected farmers 42%	Affected farmers 56%
Affected farmers <2.5 acre 13%	Affected farmers <2.5 acre 35%	Affected farmers <2.5 acre 10%	Affected farmers <2.5 acre 30%	Affected farmers <2.5 acre 12%
Replanted Farm lands 33%	Replanted Farm lands 54%	Replanted Farm lands 11%	Replanted Farm lands 21%	Replanted Farm lands 34%
Cost of replantation 71%	Cost of replantation 47%	Cost of replantation 33%	Cost of replantation 71%	Cost of replantation 43%

Replanted farmlands data are calculated based on November 27, 2019 dated data provided by Department of Agriculture(DoA). Affected farmers, affected farmers <2.5 acre, cost of replantation data are calculated based on RSM data.

B.9.- Priority needs requested by flood affected communities *(RSM household questionnaires)*



More than 75% of respondent requested Agricultural inputs (Quality seeds and fertilizer).

C.- CONCLUSIONS

- More than 50% of total farmers affected
- Small-scale farmers (19% of total farmers) are affected
- 30% of farmland flooded
- Highest share of affected farmers in Kachin and Tanintharyi
- Highest share of affected area in Kachin (Shwe-Ku) and Kayin (Hpa-an)
- Highest impact in housing, water and food access in Bago and Tanintharyi
- Highest indebtedness due to floods in Bago, Kachin and Tanintharyi
- Highest use of coping mechanisms in Tanintharyi
- Worst food insecurity in Bago and Tanintharyi
- Lowest shares of replanting in Tanintharyi

C.- CONCLUSIONS

- Prices for food and non-food items were not affected by the flood. Rice availability just decreased by 15%
- Poor, Elderly-& Female-headed HH, U5 children and women & HH close to rivers or flat areas, subsistence farmers are the most vulnerable to floods and with less recovery capabilities
- Market accessibility was not severely affected by the floods (only 30% have difficulties).
- Debts by 100% of respondents in Bago (Food + Agri-Inputs), Tanintharyi (Agri-Inputs & Losses) and Kachin (Agri-inputs). Less in Mon (inputs + food) and Kayin (Inputs + food + health).

D.- RECOMMENDATIONS

- Immediate restoration of agricultural production through the provision of agriculture inputs to most vulnerable flood-affected women, men, girls and boys in Bago Region, Mon State, Kachin and Kayin State. Short cycle vegetable using storage moisture. For example cauliflower, radish, mustard, lettuce, kale, yard long bean, okra and Spanish can harvest within 60 days (2 months) after sowing.
- Asset creation schemes to restore livelihoods activities through cash based programming for the most vulnerable population. The assets rehabilitation schemes should include water infrastructure (wells, channels), flood preparedness works, and farm land development
- CBDRM planning integrated with village development plans
- Technical support to communities regularly affected by floods for early warning mechanisms and pre-positioning (funds & resources) for early reaction
- Support to farmers for Climate Smart Agriculture for next seasons