



Ministry of Agriculture, Livestock and Irrigation

Department of Agriculture

Magway Region, Magway District, Myothit Township



Factors Affecting on Cropping Pattern in Irrigated Area (Natmauk Dam)

Aye Hninn Yu

Deputy Staff Officer

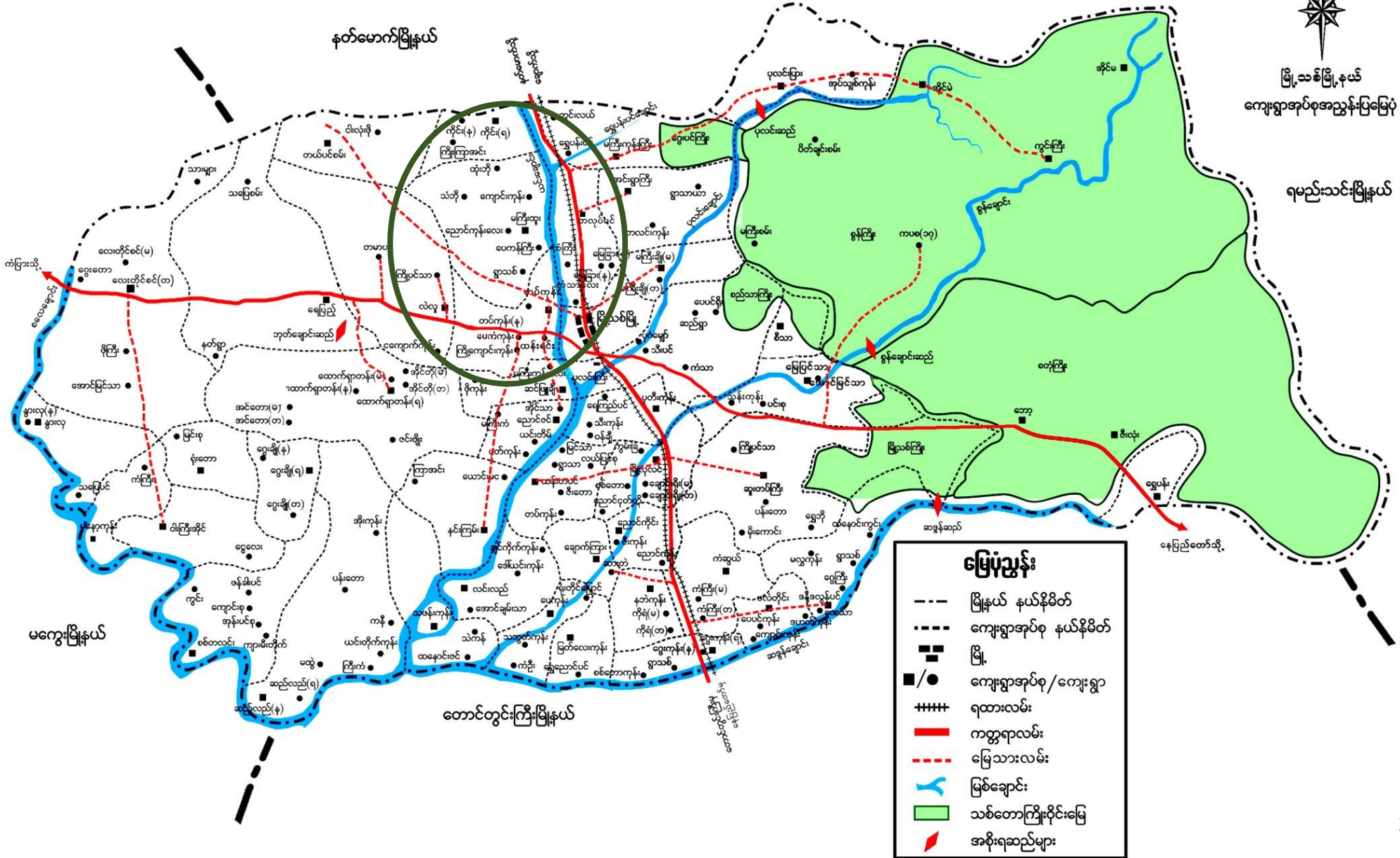
Myothit Township

(January, 2021)

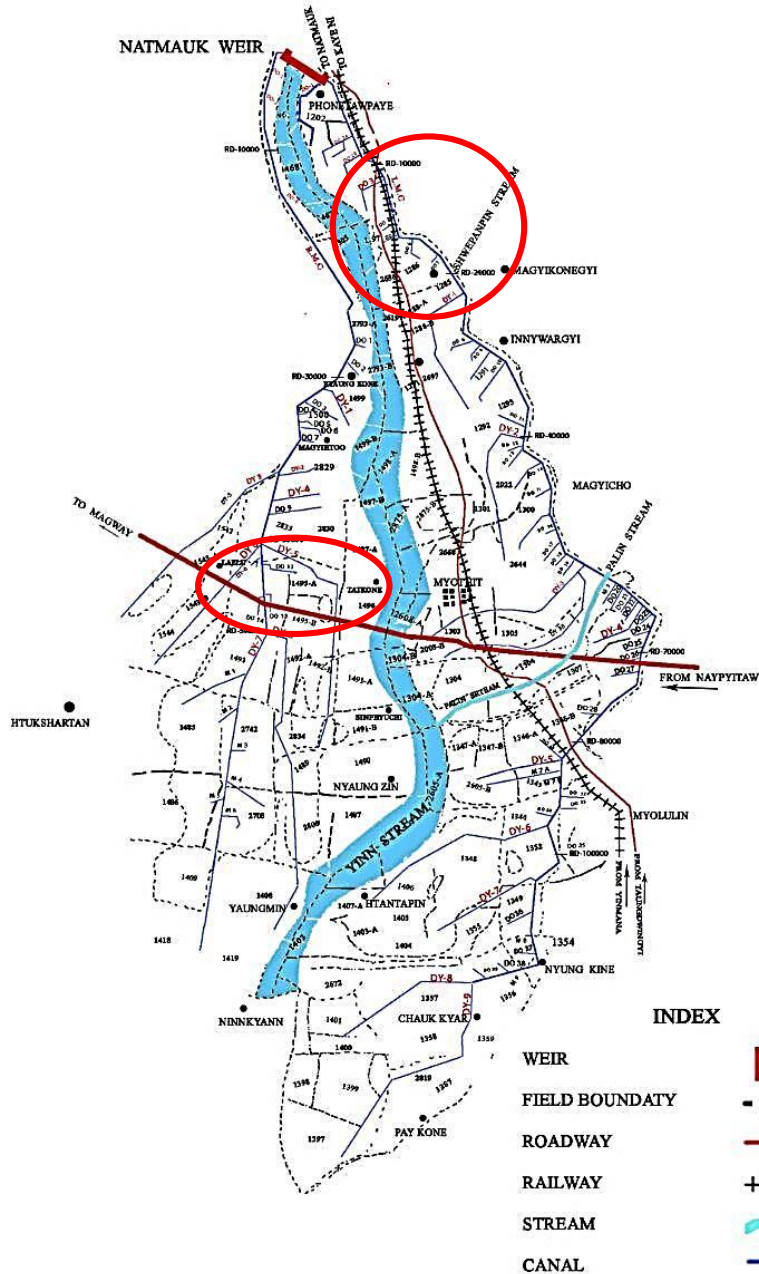


INTRODUCTION

မြို့သစ်မြို့နယ်မြေပုံ



NATMAUK IRRIGATION NETWORK SYSTEM
(NAMAUK & TMYOTHIT TOWNSHIP)



Land utilization (acre)

Lowland	58823
Upland	90801
Kaing Kyun Land	1056
Forest Reserve	117997
Wild land	886
Wild land (ungrown)	53187
Land that cannot be cultivated	69366

Covering area (acre)

2019-2020	12872
2020-2021	6958

Rainfall

Months	10 year average		2019		2020	
	Days	Inches	Days	Inches	Days	Inches
Jan	1	0.45	2	0.44	-	-
Feb	-	-	-	-	-	-
Mar	-	0.05	-	-	-	-
Apr	1	1.3	1	0.42	1	1.4
May	5	2.54	4	1.88	8	2.76
Jun	12	6.38	9	2.88	13	4.48
Jul	14	7.48	16	6.12	10	4.8
Aug	15	6.94	16	8.92	16	10.96
Sep	13	6.96	13	7.16	10	6.84
Oct	9	6.24	4	0.96	6	0.88
Nov	1	0.77	5	2	-	-
Dec	0	0.15	-	-	-	-
Total	71	39.26	70	30.78	64	31.32

Objectives

- To study the factors affecting on cropping pattern in Natmauk dam irrigated area
- To study the changing cropping pattern (last 5 years, last 10 years and currently)

Problem Statement

- Climate change obviously- year by year (drought, heavy rains, unusually rains, flooded)
- Impact- yield loss, low yield → low income, lose confidence in their livelihood
- Change cropping pattern
- Youth labor (family and hired) migrate → labor scaring



Watermelon cultivation



Magyi Htoo village

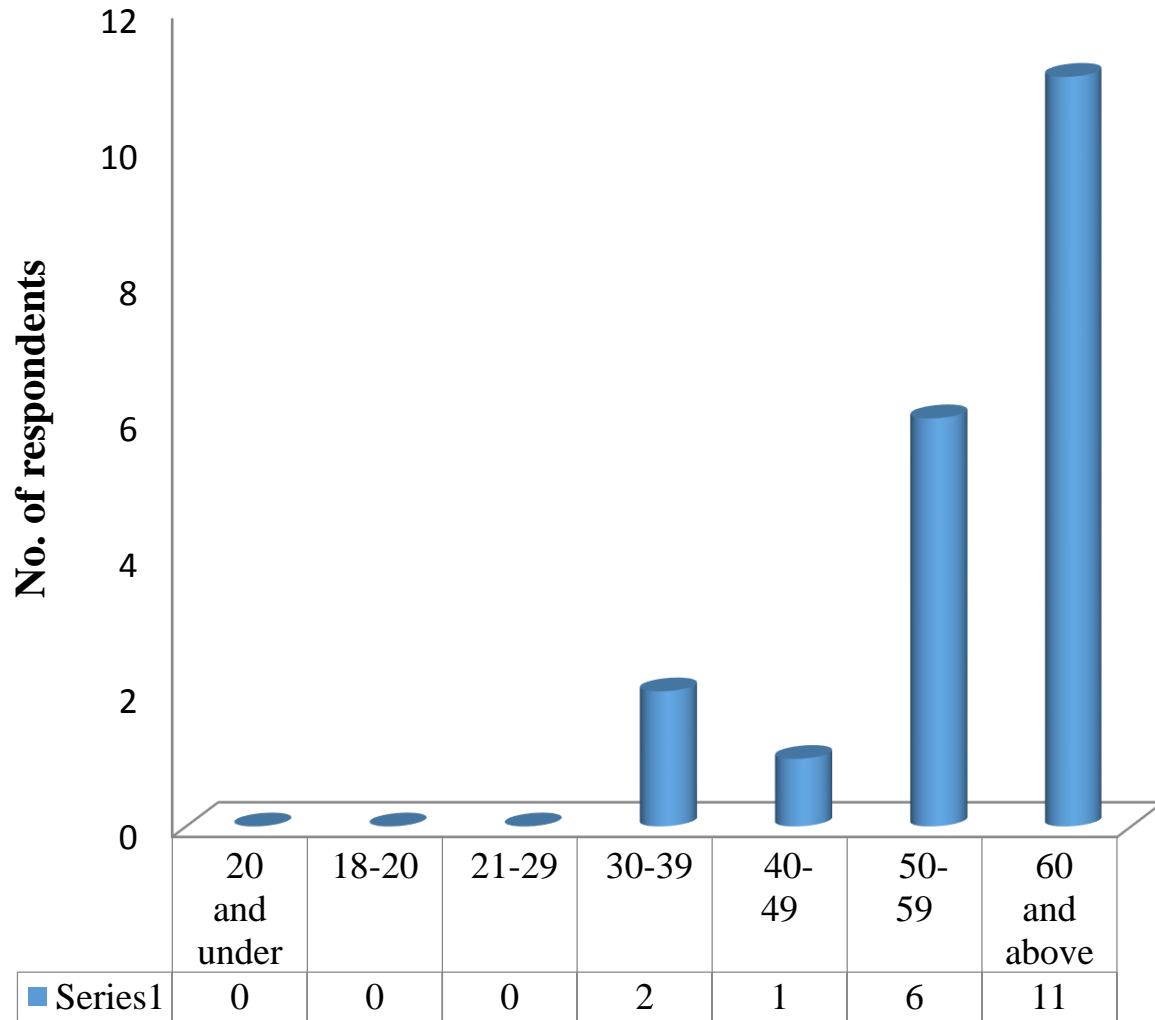
Sampling area and size

No. of Villages	4 Natmauk Dam right canal- Tut Kone and Lelu villages Natmauk Dam left canal- Talokepin and Shwepanpin villages
Surveying Date	14.12.2020
No. of respondents	20
No. of questions	14

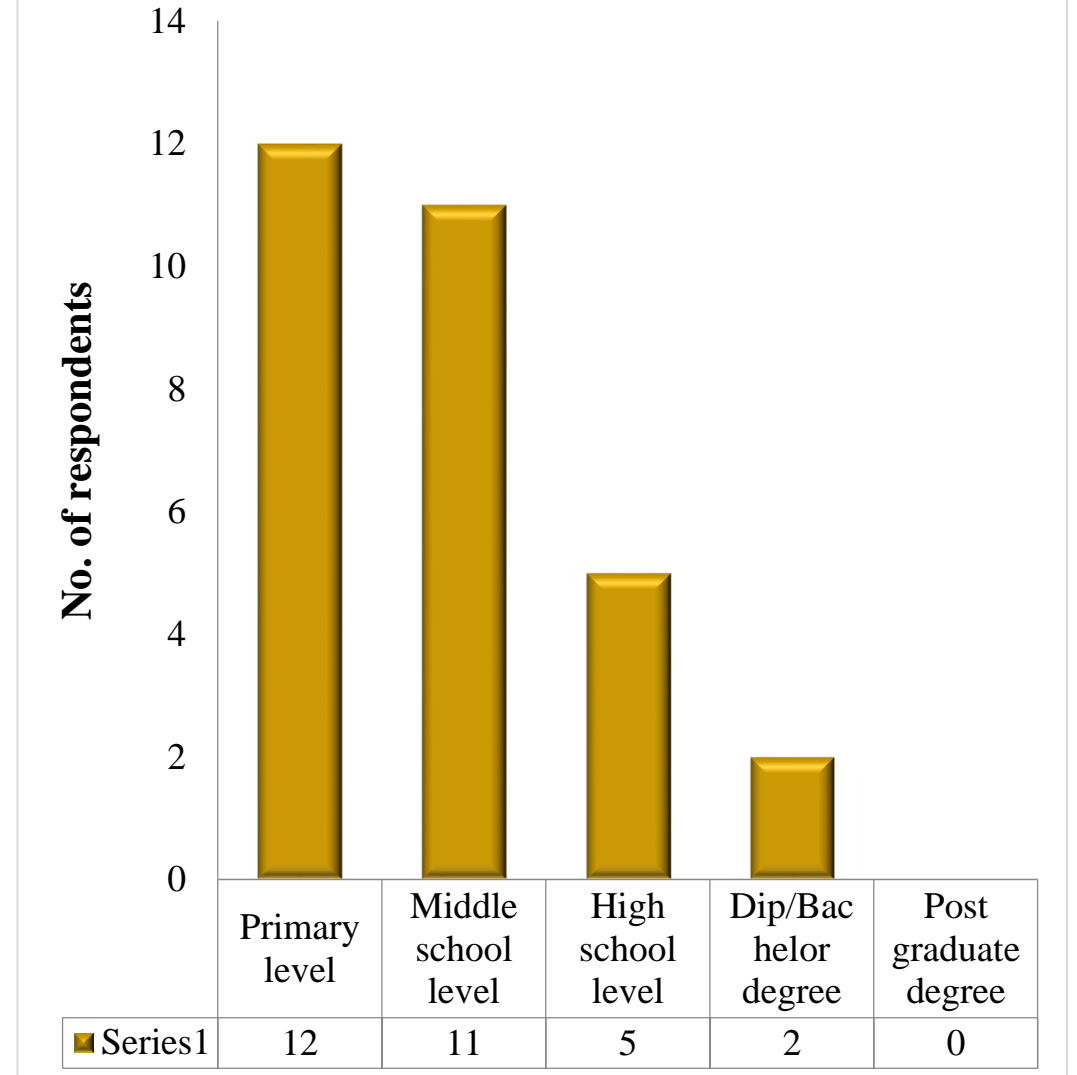


Results

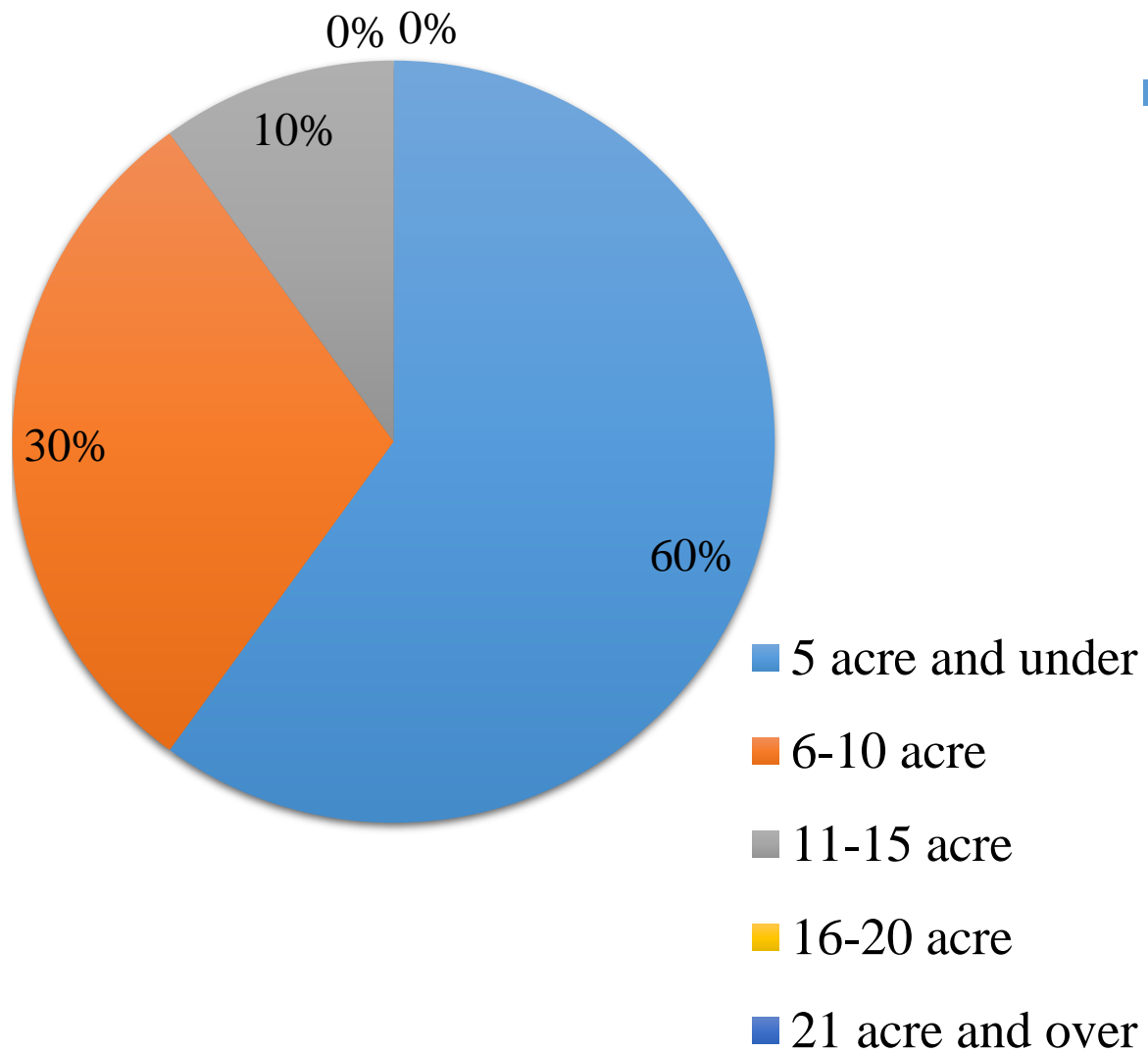
Age variation



Educational status

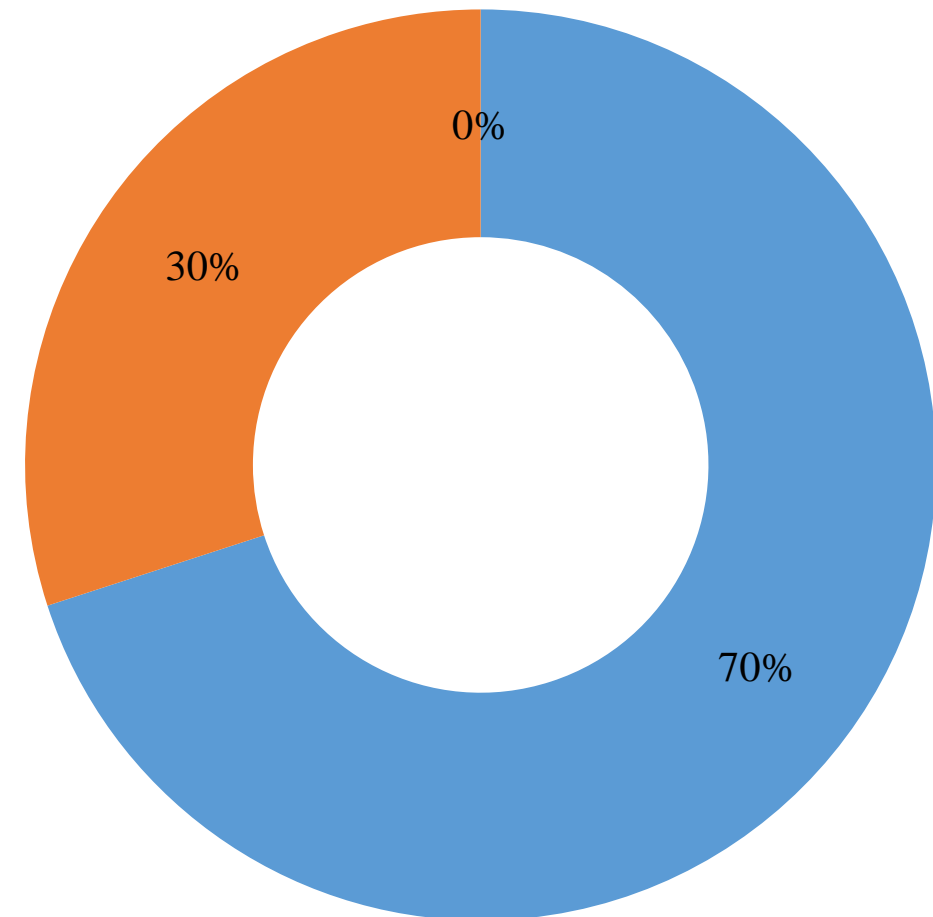


Land ownership (lowland)

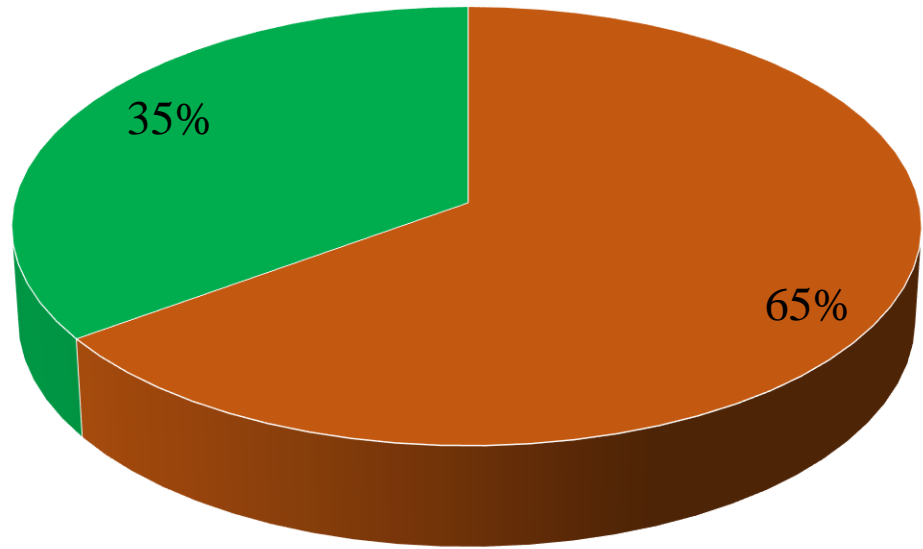


Decreasing or Increasing Soil fertility

■ Nothing ■ Decreasing soil fertility ■ Increasing soil fertility

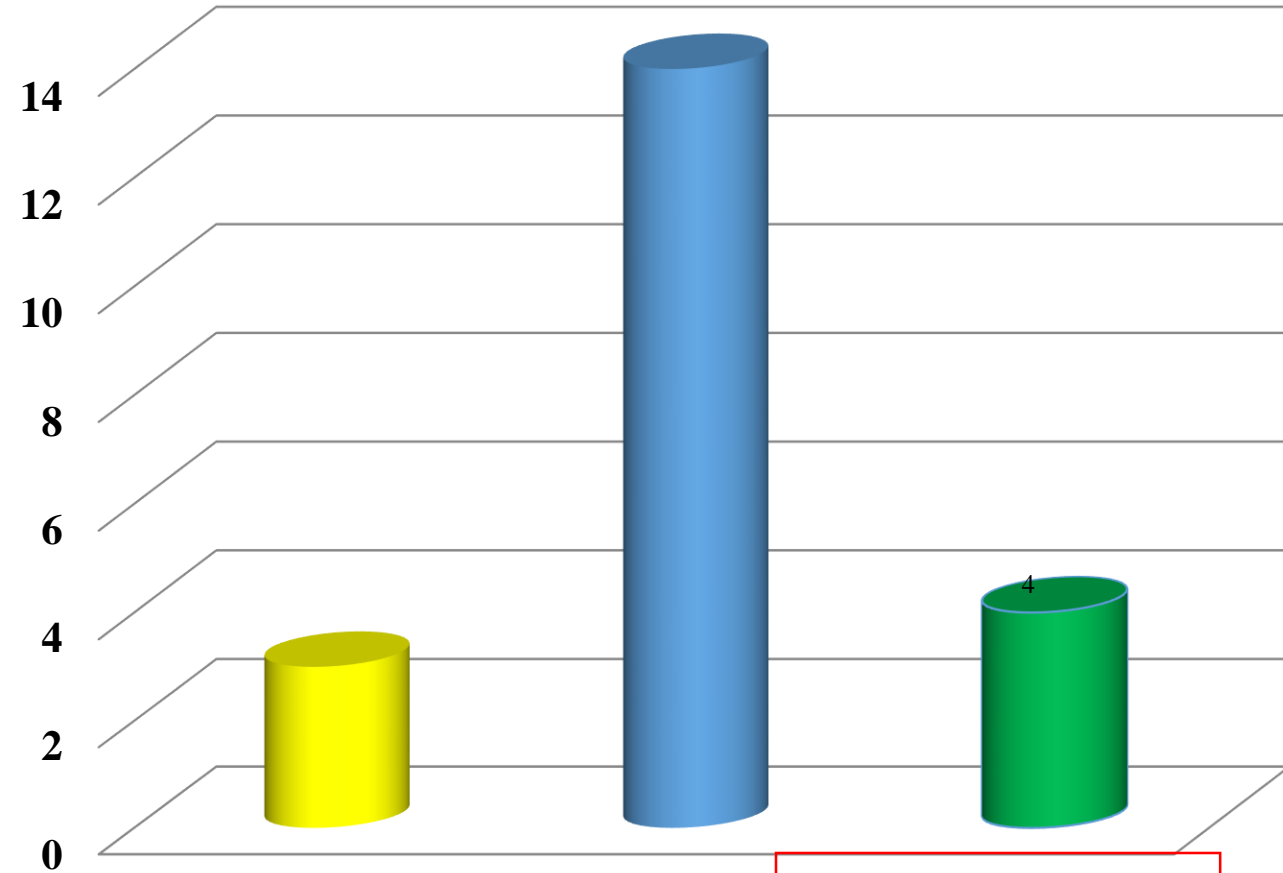


Rainfall condition



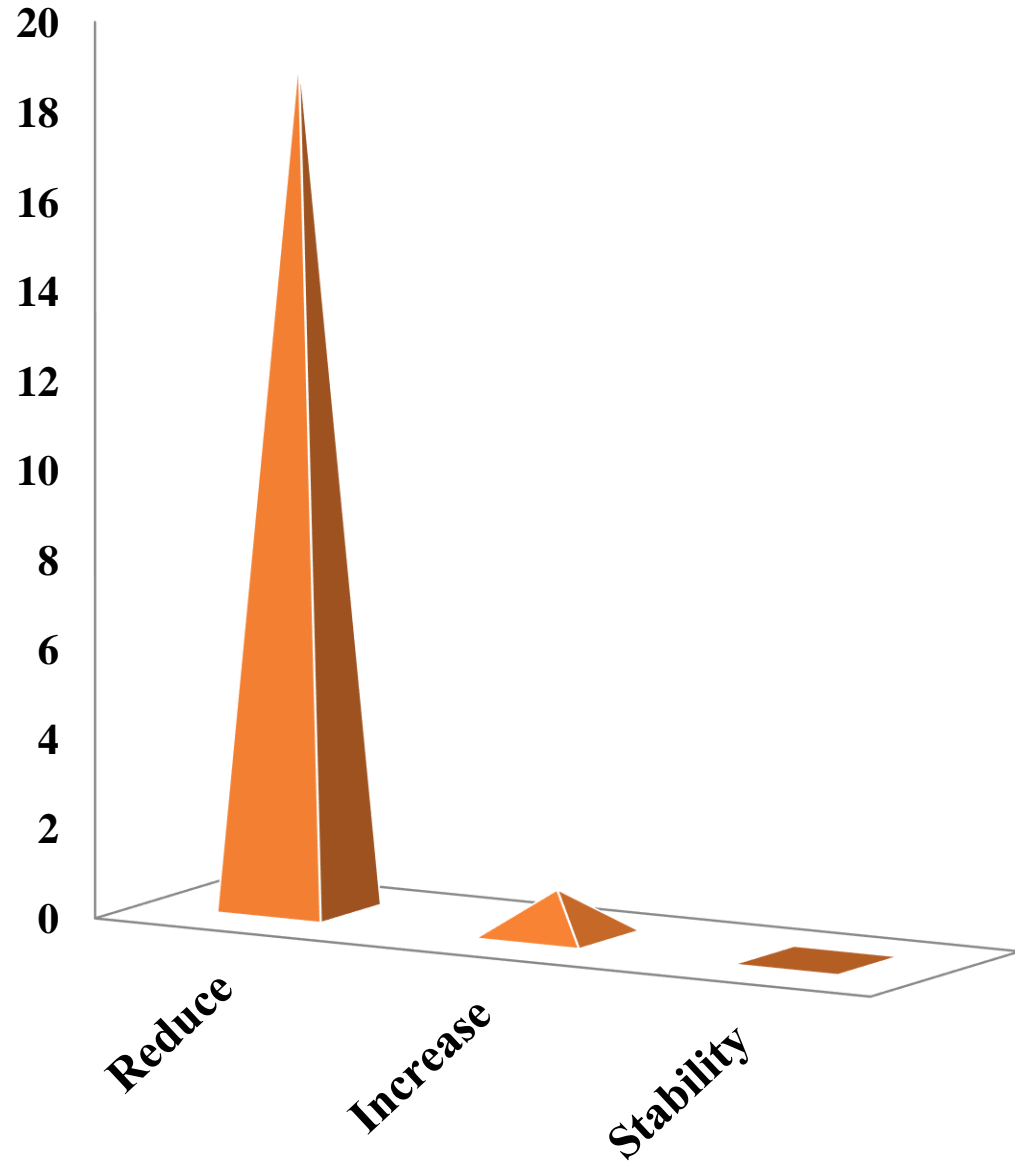
- Late rains
- Not enough rain or water
- Unusually

Water available



Usage of supplementary water resources (eg. Tube well, Micro dam, village dam)

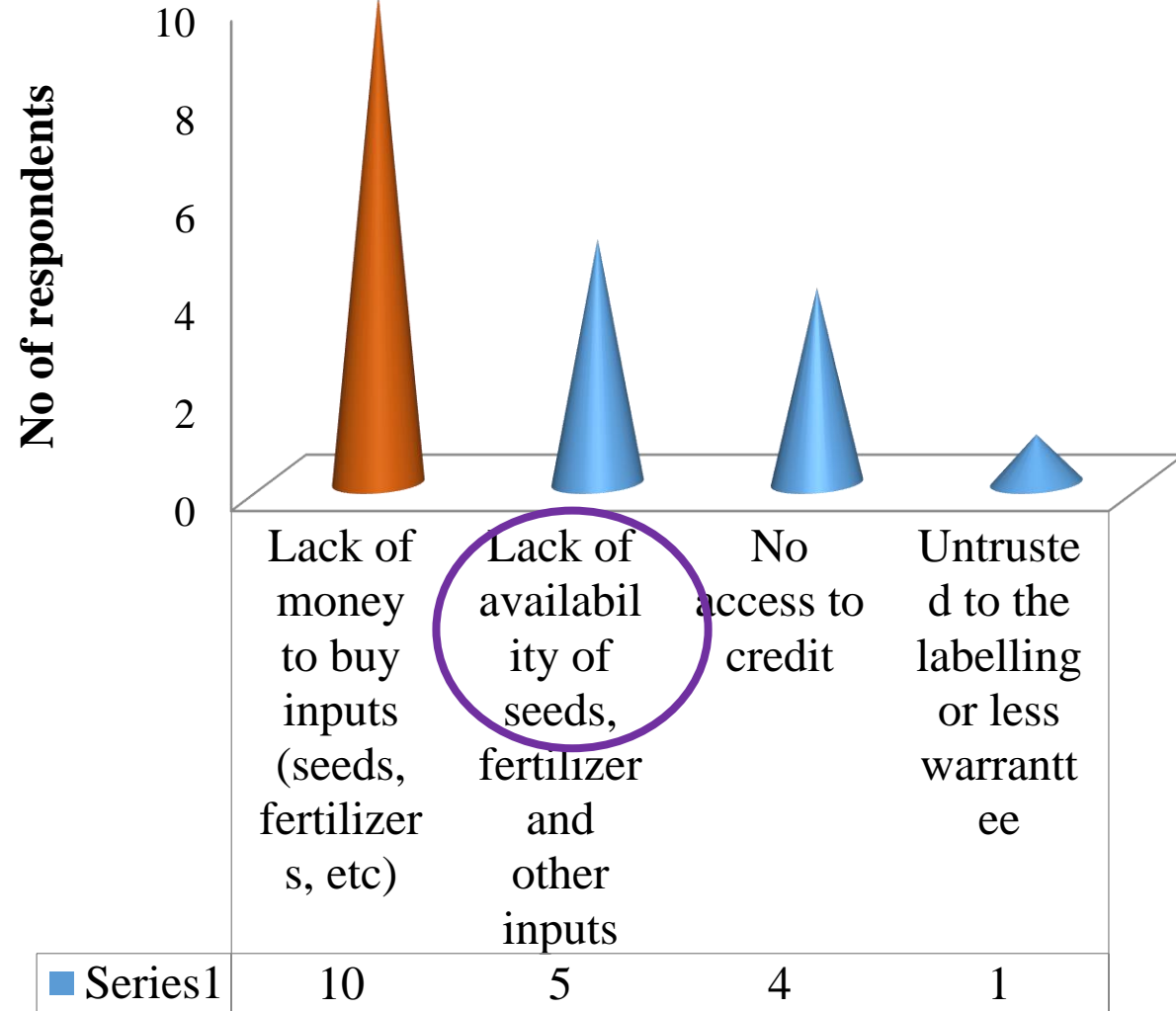
Current yield



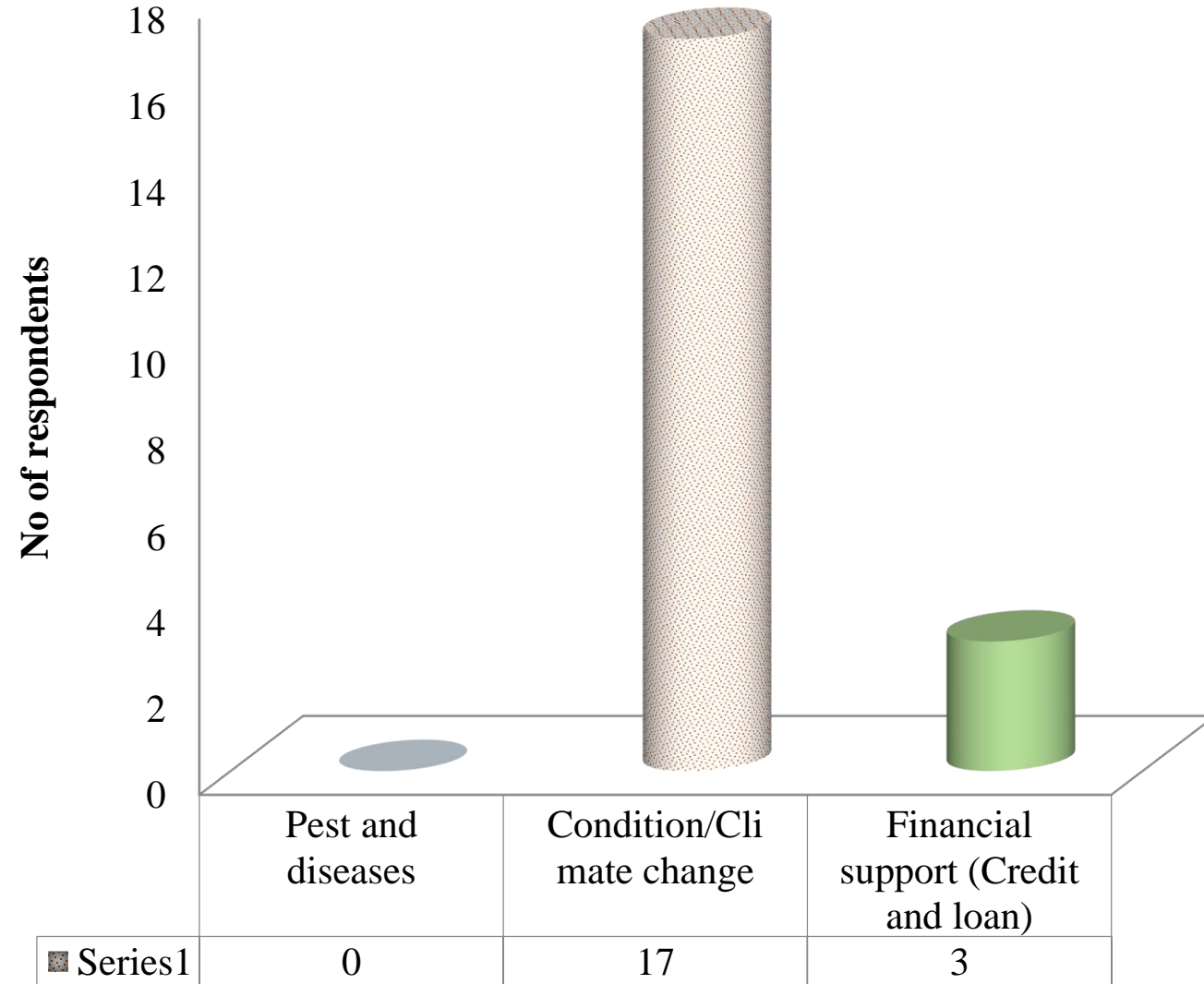
Cropping Pattern Changed by...

No.	Question	Yes	No
1	Current market situation	4	16
2	Labor market	5	15
3	Agricultural information assess	8	12
4	Getting in Pre-order for crop production	8	12

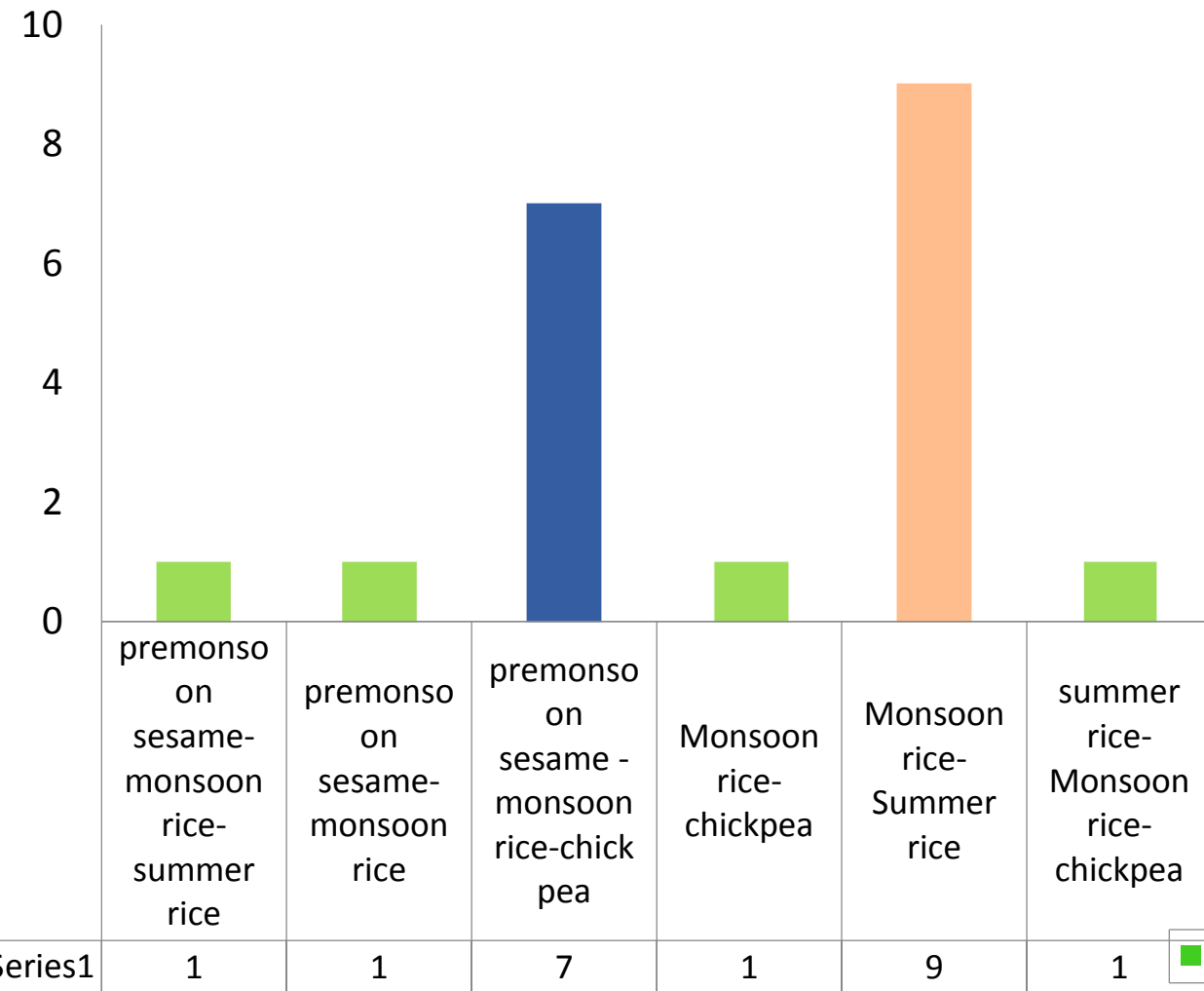
Constraints through inputs



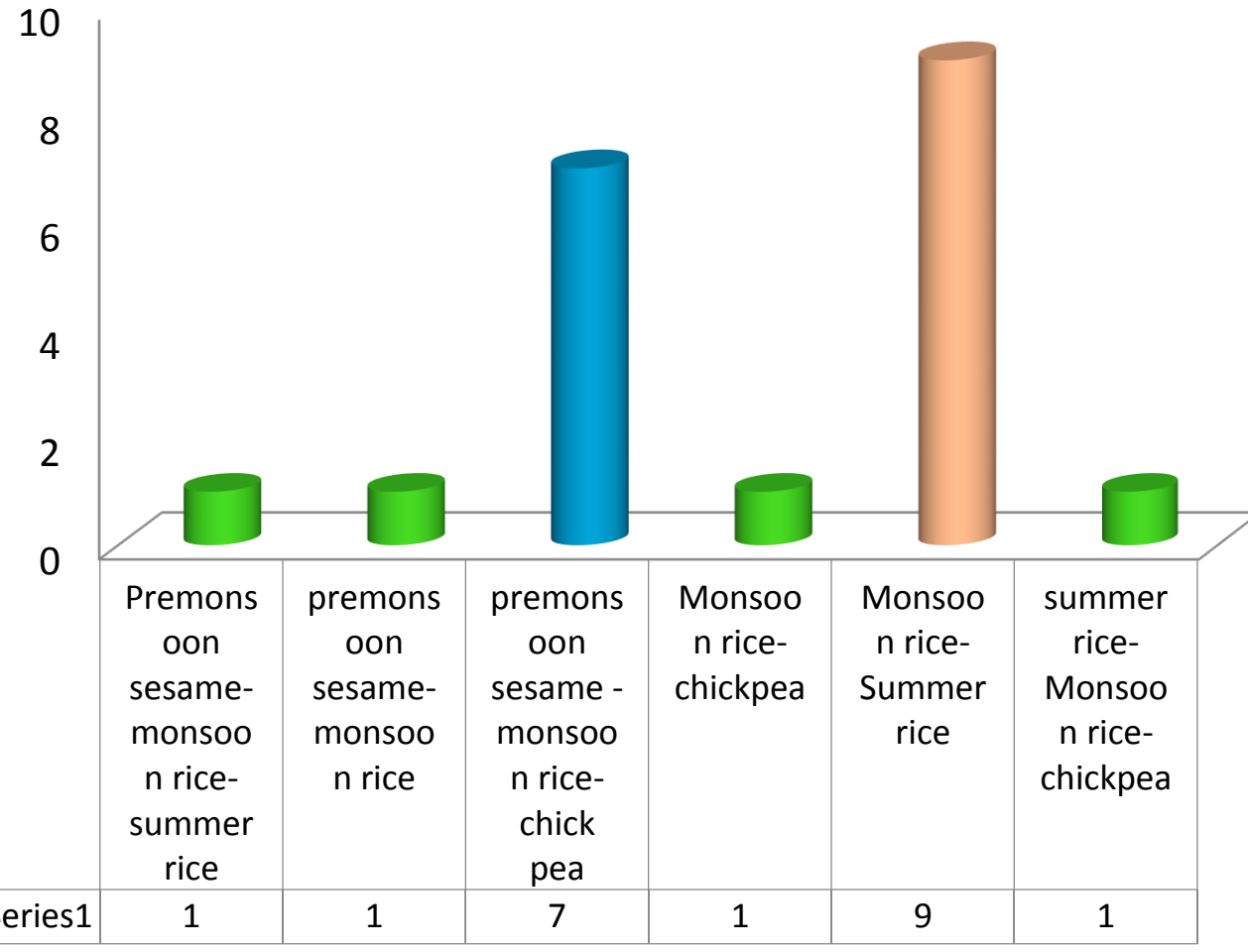
Challenges



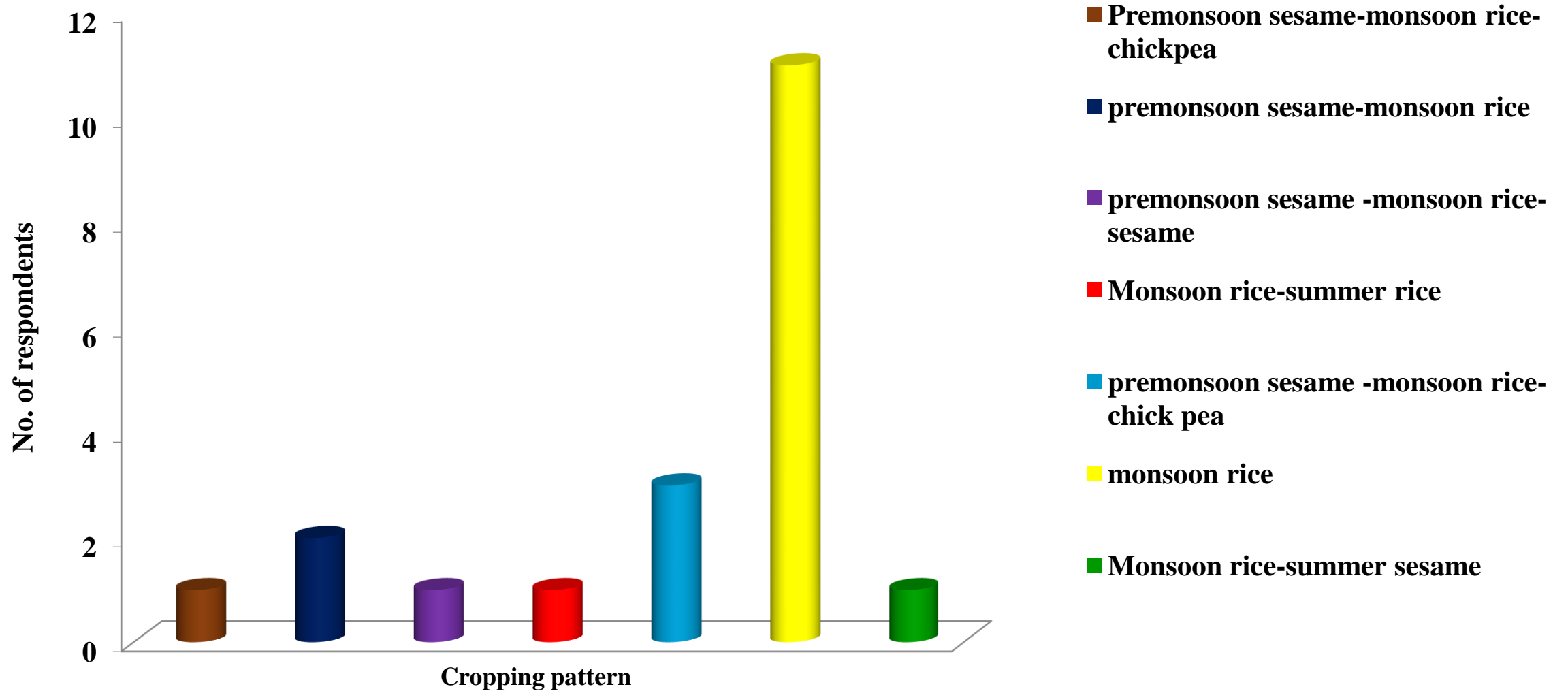
Cropping pattern last 5 years



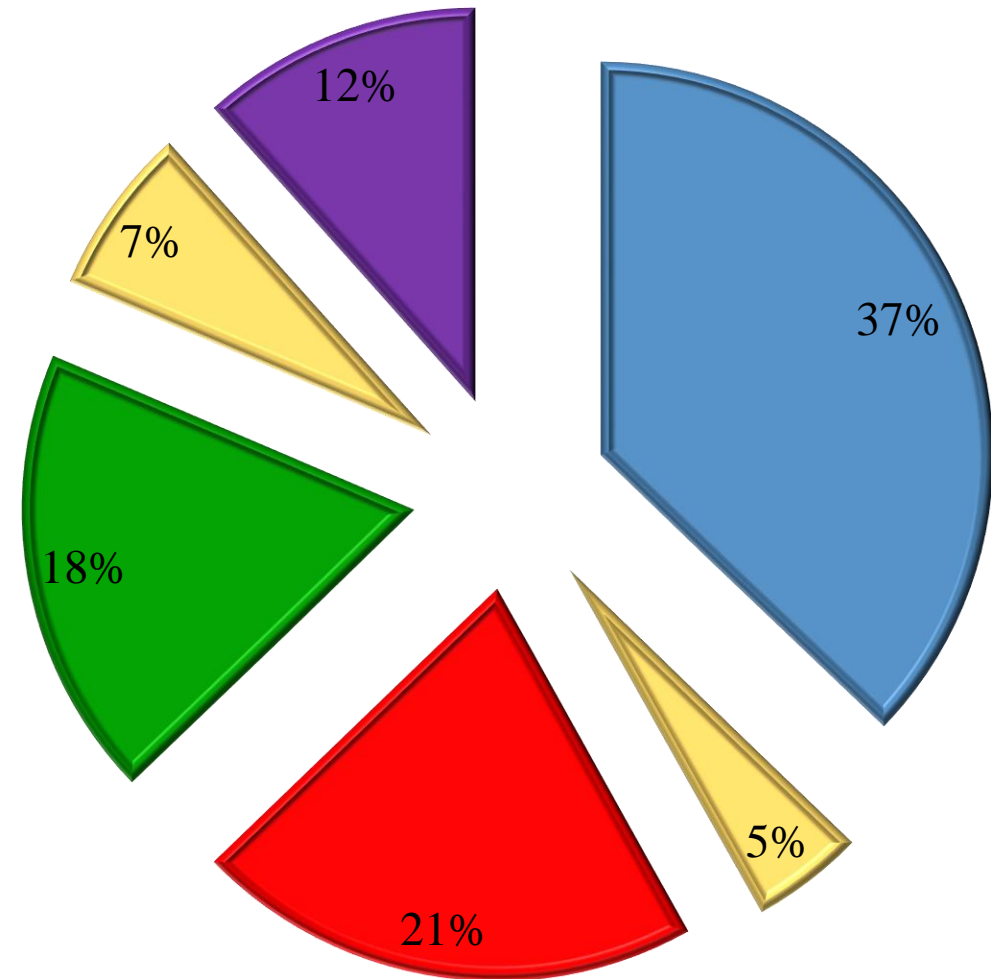
last 10 years



Current cropping pattern (2020-2021)



Farmers' options/needs










- Need to get more predictable weather condition
- Need to get pre-order for agricultural products
- Need to get crop-insurance policy
- Need to get credible linkage in farmers, private sector and government accessibility
- Need to get more support by government sector
- Urgently need to conserve environment factors and to drive climate smart agriculture

Discussions

- ▶ Late and not enough rain directly effect - reduce yield and net profit → change cropping pattern
- ▶ Increase tube well for supplement water
- ▶ Labor risk - not directly to cropping pattern, however directly to cropping system (eg. broadcasting, more use combine harvester, weedicide, etc)
- ▶ Input investment - need more credit and loan
- ▶ More quality seeds
- ▶ Less knowledge in soil fertility
- ▶ Less agricultural information assess

Conclusions and Recommendation

-  Need more predictable weather forecast
-  Need to advise new cropping pattern
-  More introduce water saving technology
-  Produce quality seeds - SGA, SGC
-  Demonstrate short duration and drought resistant varieties which adaptable to local areas
-  Need to give awareness in agriculture information and soil fertility and management through training and mobile application (PP, DOA, Green Way, etc), short study trip
-  Need to do more survey in another irrigated and upland area



**Onion growing with drip irrigation,
TutKone village**



Cash crops in Tutkone village



Cotton in TutKone village



Cotton varietal trial in Myolulin village

လမ်းညွှန်မှုခံယူအပ်ပါသည်

