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Assessment of Potential, Opportunities, Challenges, and Gaps of Fodder for Sustainable Livestock Production in Bardhere District, Somalia.

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ABSTRACT

Fodder refers particularly to feed of a vegetative nature given to the animals (including plants cut and carried to them), for Sustainable farm animal raising of sufficient quantities and quality of forages and fodder, rather than that which they forage for themselves. It includes hay, straw and silage. Therefore, the purpose of this review paper was to explore the potential, opportunities, challenges and gaps in fodder production in arid and semiarid regions at the Bardhere district of Gedo, Somalia. For describing the evaluation of potential, opportunities, challenges and gaps in fodder production, descriptive survey designs were used. The information was gathered between November 2022 and June 2023. A questionnaire was used to collect data. The total number of respondents was 80 across various fields (livestock farmers and forage producers in bardhere district). The data was arranged and analysed by using SPSS. The researchers met all of their study objectives and came up with a beneficial: The researchers met all of their study objectives and came up with a beneficial conclusion. The majority of the respondent 65% answer 18 and 45 between ages. The majority of the respondents (81.25%) were male, while only 18.75% percent were female, according to the study. The researcher discovered that 63.75% percent of the respondents were married, while 6.25% were widow and divorced. However, 18.75% of the respondents were single, and 11.25% were just window. According to the educational background, 33.75%were illiterates, 30% were primary school, 30%had secondary education and 16.25% had of university. The bulk of the respondents were farmers, with 57.75%being farmers, 21.25 percent being livestock keepers, 11.25% being fodder traders and 10% prevented then others specific tread according to the study. The majority of respondents main challenge of fodder production answered 50.5% disagree. Therefore, it is strongly suggested that forage should be promoted into the sustainable livestock production and the environment, particularly in the country's arid and semiarid regions.

Keywords: *Potential, opportunities, challenges, gaps, fodder, sustainable, livestock, production, Bardhere district, Somalia*

1. INTRODUCTION

Fodder refers particularly to feed of a vegetative nature given to the animals (including plants cut and carried to them), rather than that which they forage for themselves. It includes hay, straw, silage and pelleted feeds, oils and mixed rations, and sprouted grains and legumes. Fodder crops are plants which, when grown as a crop, have been found to produce high yields of plant material which are also high in nutrients suitable for livestock requirements for maintenance and production (Gebreyohannes, G Hailemariam - Drylands Coordination Group (DCG) Report, 2011). Forage (fodder) crop production plays an important and effective role in agriculture economic development. Fodders are the most valuable and cheapest source of food for livestock having rich source of metabolizable energy, nutrient elements, carbohydrates and protein. With quality nutritional fodder, milk production can be increased up to 100% (Balvanera, 2015).

Generally, good quality forage is high in protein and digestible nutrients, and low in fibber and lignin. Also, animal performance is a better indicator of forage quality. Legume crops constitute a major group of crops in the world. They provide human food, animal feed and material for industrial uses. Their nutritional value as a source of protein has long been recognized. However, only recently legume crops have risen to prominence in the Kingdom of Saudi Arabia (Bakhashwain, 2010). An opportunity of livestock fodder is that it ensures adequate supply of fodder to produce silage, hay and straw.

Processing material to digest to improve storage to protect from moisture. Protecting from moisture; improves access to quality seeds, increase field and diversity feed crops. And diversity of feed crops; improve farming education (Orkolili, 2014).

In Ethiopia the Ministry of Trade acknowledges the fodder challenge along the export trade routes and recommended that fodder banks and commercial fodder units are established at Mile and Dire Dawa a quarantine station that experiences water shortage. Another location suggested was Galafi a border post where animals were kept for 1-3 weeks especially when the export documents were found to be incomplete. These locations were confirmed by other Key 3 informants, who underlined the fact that livestock for export is often kept at the feedlots for 2-3 months for finishing and regularly run out of fodder during this time. Stakeholders also supported the prioritizing of Mile quarantine station for establishing water and fodder resource due to the fact that animals are held for a long time awaiting finalizing

documentation process. As can be expected, there are large differences in fodder availability during the dry and wet seasons. To better understand pasture and rangeland production in different regions of Ethiopia, the study developed maps to help identify the (high) potential pasture and rangeland production areas. The maps on pages 31 and 32 show this for the dry and wet season, respectively. Based on analysis of Normalized Difference Vegetation Index (NDVI), topography, rainfall and land cover, areas regarded as having good pasture potential during those periods can be identified and interventions are well targeted (FAO, 2017)

In Somalia fodder scarcity is a much bigger problem than water scarcity. It is therefore suggested to focus on improving feed availability in Somalia. Of all four focus countries, Somalia is the one that is most dependent on the livestock trade, and hence should ideally receive the bulk of support. Northern Somalia suffers frequent fodder shortages, and this study therefore focused mainly on Somaliland and Puntland territories as these areas are the main places where vibrant export-oriented livestock marketing takes place. In Northern Somalia water and fodder resources are limited and have the potential to ignite conflicts especially. Due to the fact that the baseline study team could not visit South Central Somalia and Puntland, this section focuses mainly on the water and fodder situation in Somaliland. The following interventions are prioritized for implementation (FAO, 2017).

Despite many difficulties including insecurity polite. The livestock sector and exports therefore has a major impact on the country's food deficit and overall food security, which has worsened recently and therefore the need for increased growth 4 of the livestock sector, is even more pressing. Since the beginning of the civil war in the early 1990's, levels of food production have generally been low. Adverse weather and a lack of seeds for cultivation, compounded by insecurity and population displacement, has further hampered farming in south central Somalia. Successive crop failures have also denied farmers any surplus production for the purposes of seeds. Alack of pest control and other agricultural extension programmers' has resulted in the proliferation of crop destroyers, notably armyworms, stalk borers and birds. The majority of agriculture in the region takes the form of subsistence grain production, providing the bulk of household income in the inter-revering communities, especially along the Shebelle and Juba Rivers. Cereal produced in the south and central region accounts for 70-75% of the total food produced in the country (Mohamed, 2015).

Fodder production in bardhere district should be promoted mainly to improve livelihoods by developing alternative, complementary, and improved income, but also to preserve and improve livestock-based livelihoods in the case of drought. However, while there may be some general studies on sustainable livestock production and fodder in Somalia, there is likely a lack of detailed, localized research specifically focusing on Bardhere District. There is need to assess the potential opportunities, challenges, and gaps in fodder for sustainable livestock production in Bardhere District is crucial for informing policy and decision-making processes at the local level. This research can help identify areas that need attention and investment, as well as highlight successful practices that can be replicated and scaled up in the region. Therefore this research paper intends to to investigate the potential, opportunities and gaps of fodder production bardhere district Gedo in Somalia to provide valuable insights and recommendations for improving sustainable livestock production practices in the region.

2. THE PURPOSE OF THE STUDY

The purpose of this study is to investigate the potential, opportunities and gaps of fodder production bardhere district Gedo in Somalia to provide valuable insights and recommendations for improving sustainable livestock production practices in the region and to serve as serve as a valuable resource for policymakers, researchers, and practitioners working in the livestock sector in Somalia, helping them to formulate evidence-based policies and interventions that promote sustainable livestock production practices and enhance the resilience of livestock farmers in the face of external challenges.

3. RESEARCH METHODOLOGY

3.1. Study area and designs

This study investigated the potential, opportunities and gaps of fodder production bardhere district Gedo in Somalia. However, the researchers selected number of 100 families, forage producers and livestock farmers .The researchers utilized descriptive insights especially mean, standard deviation and rate to use the goals of the study. This study was focused on evaluation of potential, opportunities, challenges and gaps of fodder production bardheer district Gedo in Somalia. Quantitative method was used in this study for data collection. Researchers used explanatory research design to identify potential, opportunities, challenges and gaps of fodder production of Bardheere district Gedo in Somalia. Furthermore, the study

not cross sectional and was be collected in person from all of the respondents. The target population was a study forage producers and livestock farmers, which were in bardheere Gedo Somalia. However, the researchers selected number of 100 livestock farmers, forage producers and famers.

3.2. The sample size

Selected using various sampling methods the target population was 100 famers, forage producers and livestock farmers; the researchers were select 80 respondents as the sample size. The researchers used Slovene's formula to select respondents of the study from the population using following formula:

n=N/ (1+N (e) 2) Where n is the required sample size, N is target population size and e is the standard error or level of significance, which is popularly known to be = 0.05 or 5% for this study N = 100 and so the sample size was calculated as follows:

20

n = 100/ (1+100(0.05)2

n = 100/ (1+100(0.0025))

n = 100/ 1.25

n =80

The study used simple random sampling. Simple random sampling was used to select the farmers and categories of the respondents to be included in the sample. Simple random sampling it's a sampling method in which an object in the population has an equal chance and probability of being selected for the survey.

3.3. Data collection instrument and procedure

Data collection involved contacting members of the population that the researchers have sampled in order to collect the required information about the study. This study was employed questionnaire to obtain primary data from the target population. The use of questionnaire was justified because they provide an effective way of collecting information from a large literate sample in a short period of time and at a reduced cost than other methods. Moreover, questionnaires facilitate easier coding and analysis of data collected.

Questionnaires were personally distributed by the researcher to poultry families to complete. The researcher completed some questionnaires for those who couldn't read.

3.3. Data analysis

The data of this study analysed with the assistance of the measurable program SPSS. This program picked in light of the fact that it is fit for handling different factual examinations that are not accessible in Excel. The researchers utilized descriptive insights especially mean, standard deviation and rate to use the goals of the study.

4. THE FINDINGS AND DISCUSSION

4.1. Findings

Demographic Data Findings

Variable	**Responses**	**Frequency**	**Per cent**	**Cumulative Percent**
Gender	Male	65	65.0	65.0
	Female	15	15.0	15.0
	Total	80	100.0	
Age	18-24	9	9.0	9.0
	25-31	19	19.0	19.0
	32-38	7	7.0	7.0
	39-45	31	31.0	31.0
	More than 45	15	15.0	15.0
	Total	**80**	**100**	
Educational Level	Illiterates	27	27.0	27.0
	Primary	16	16.0	16.0
	Secondary	24	24.0	24.0
	University	13	13.0	13.0
	Total	**80**	**100**	

Occupational level	Farmer	46	46.0	46.0
	livestock keep	17	17.0	17.0
	fodder trader	9	9.0	9.0
	Agroforestry	8	8.0	8.0
	Customer	20	19.8	20.0
	Total	100	100.0	

Source: Primary data, February, 2024.

Table 4.1.6 Farming experience of the respondents

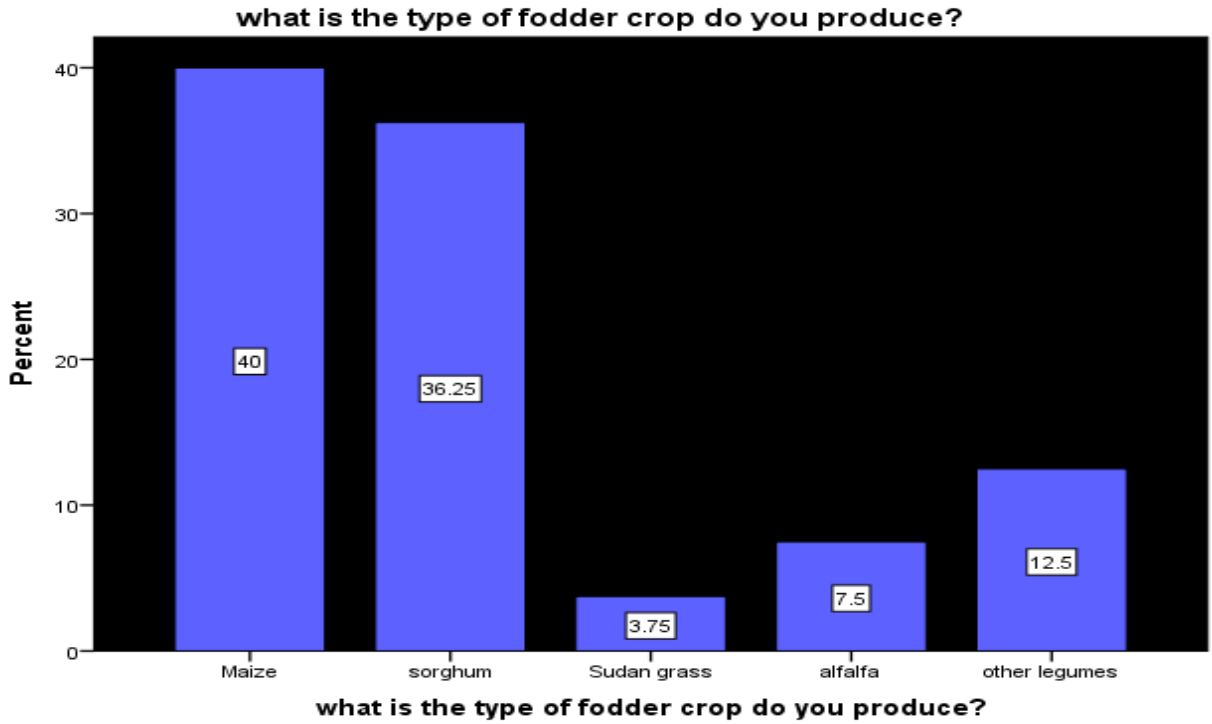
What is your farming experience of the household head?

Farm experience	Frequency	Percent
Less than 5 years	9	11.3
5 to 10 years	28	35.0
Over 10 years	43	53.8
Total	80	100.0

Source: Primary data, February, 2024.

According to the table the majority of the respondents were having over 10 years of experience 43 respondents or (53.5%), 29 respondents or 35% between 5-10 years' experience and 9 respondents or 11.3% less than 5 years' experience.

What type of fodder crop do you produce of the respondents?



Source: Primary data, February, 2024.

This described the majority of the 40% respondents were cultivated Maize, 36.25% respondents were cultivated sorghum, 12.5% respondents were cultivated other legume fodder, 7.5% respondents were cultivated alfalfa and 3.75% respondents cultivated Sudan grass.

Do you feed your animals cultivated fodder?

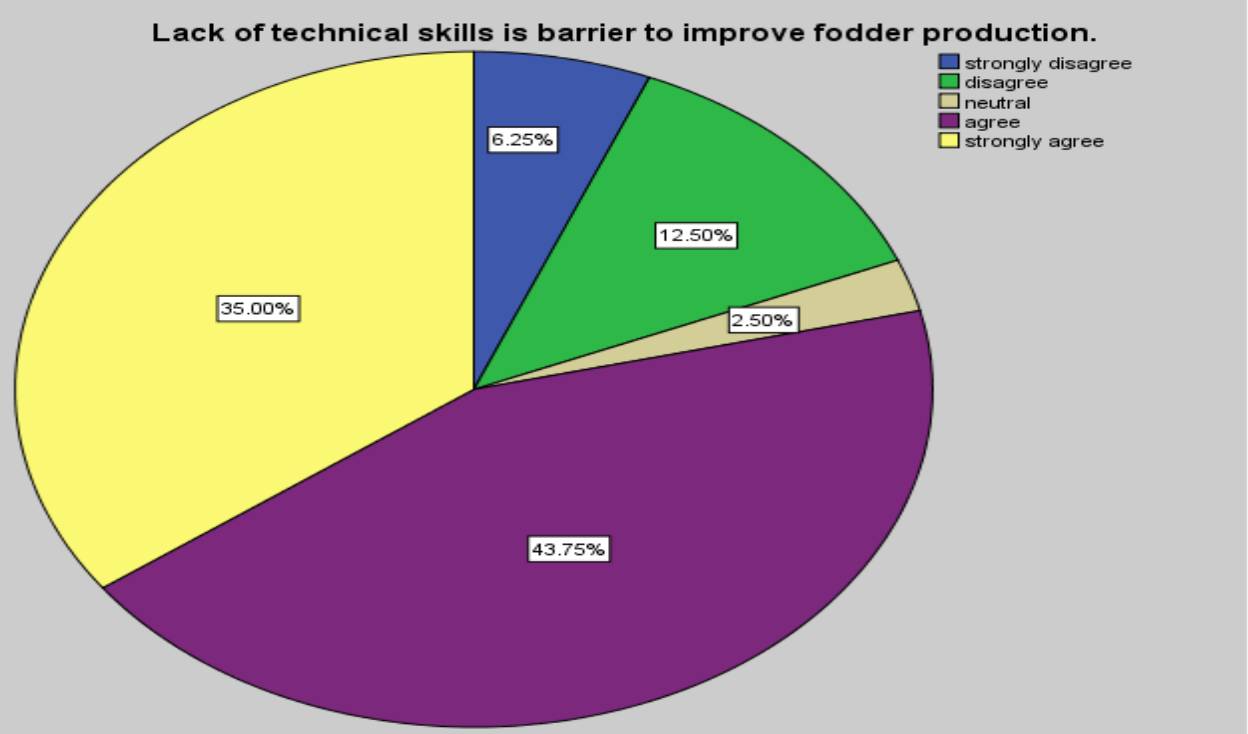
Do you feed your animals cultivated fodder	Frequency	Percent
Yes	19	23.8%
No	61	76.3%
Total	80	100%

Source: Primary data, February, 2024

According to the table 4.1.10, the majority of the respondents 76.3% respondents didn't cultivated fodder while small group 23.8% respondents were cultivated fodder.

Challenges facing fodder production

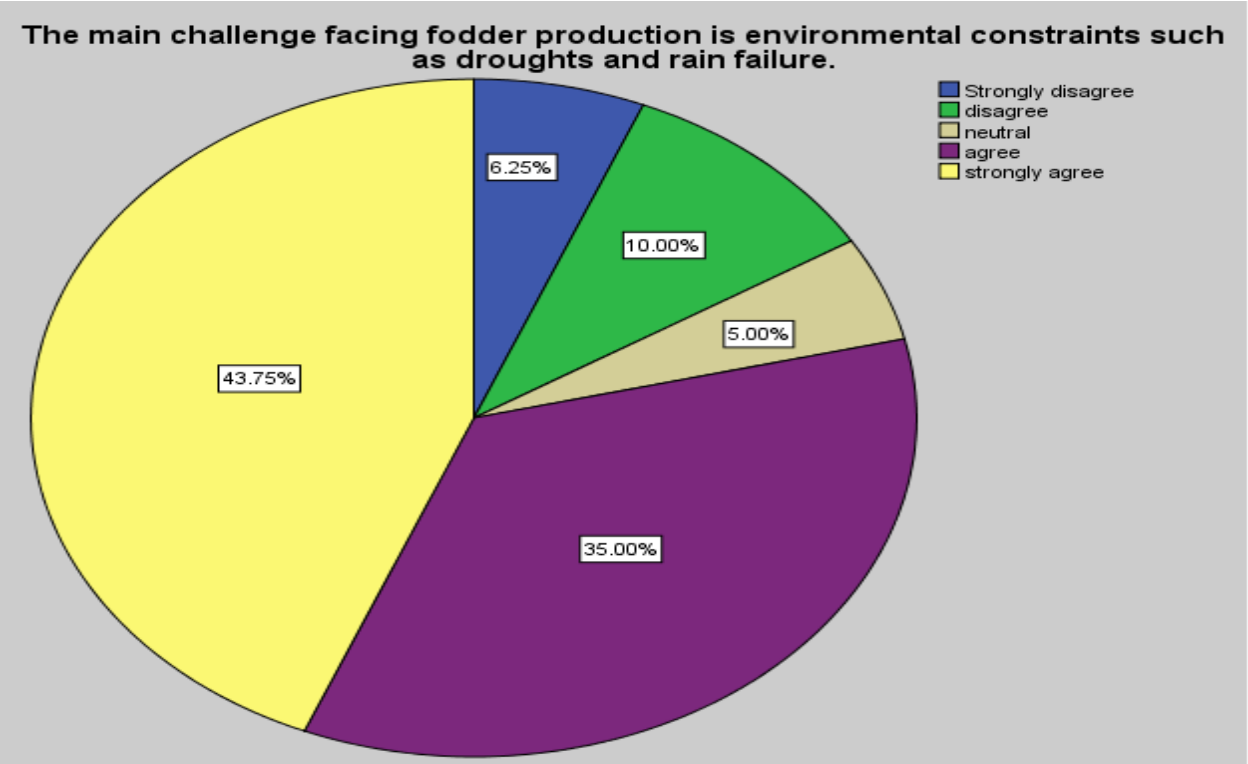
1Lack of technical skills is barrier to improve fodder production.



Source: Primary data, February, 2024

According to the figure 4.2.1 the researchers asked the respondents about whether lack of technical expertise on fodder production affected their production, about 43.8% of the respondents were agreed that there was an affect for the lack of technical expertise on that field, about 35% of the respondents strongly agreed there were an affect while 12.5% of the respondents disagree the possibility of any effect of lack of technical experience to the fodder production , group of respondents about 10% were strongly disagree and small group of respondents about 2% were neutral . This indicates that most of the respondents believe that technical experience was an important to the sector.

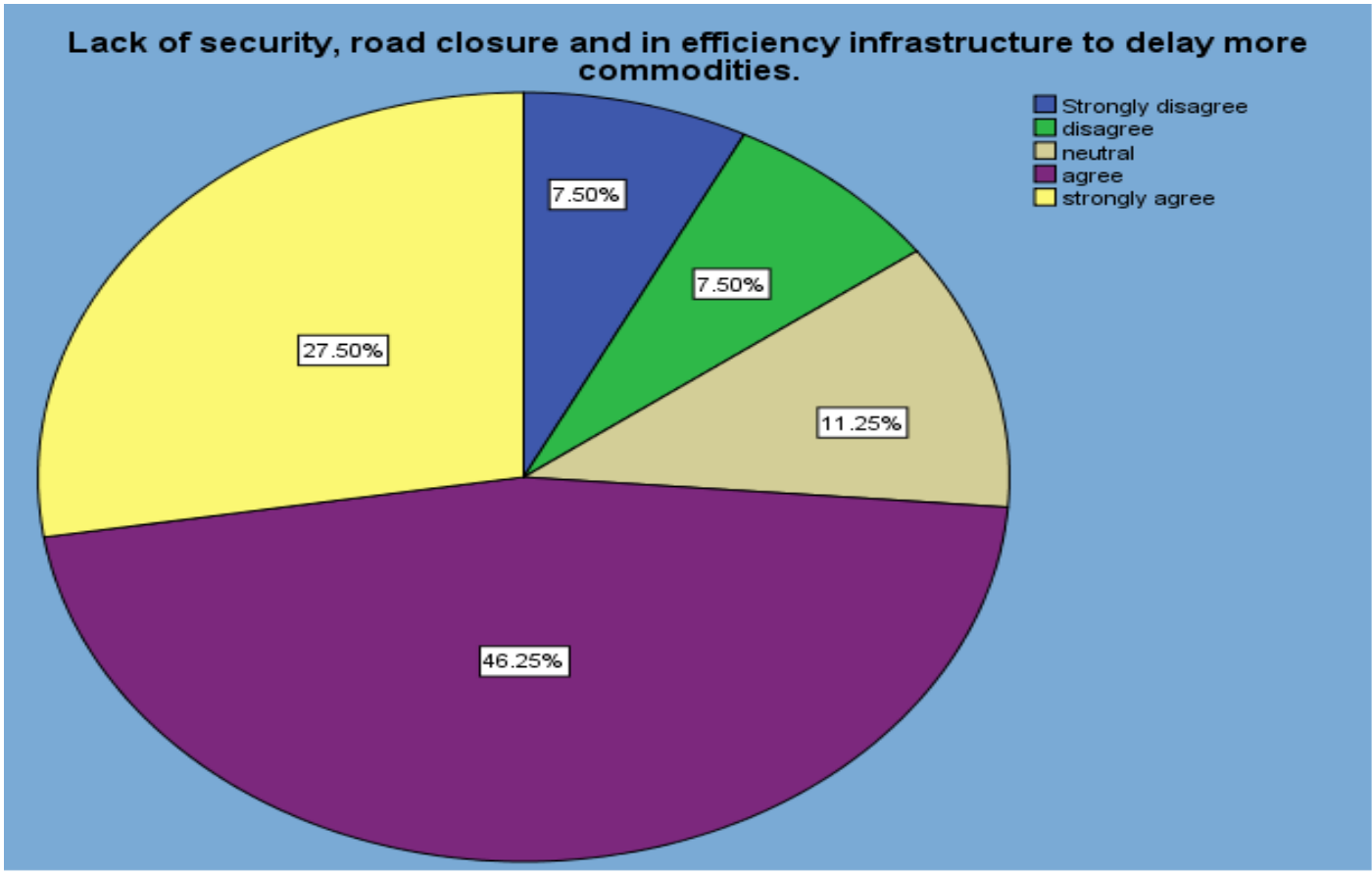
Respondents by the main challenge facing fodder production is environmental constraints such as droughts and rain failure.



Source: Primary data, February, 2024.

Above mentioned the figure about the main challenge facing fodder production environmental constraints such as failure of rainfall and droughts if was an affect to their fodder production, most of the respondents strongly agreed there were environmental constraints for their production which were accounted 43.8% while 35% of respondents were agree the same that environmental constraints were big problem to their production. About 10% of the respondents disagree the environmental constraint was the factor, About 6.3% of the respondents strongly disagree the environmental constraint was the factor and small group of 5% respondents were neutral.

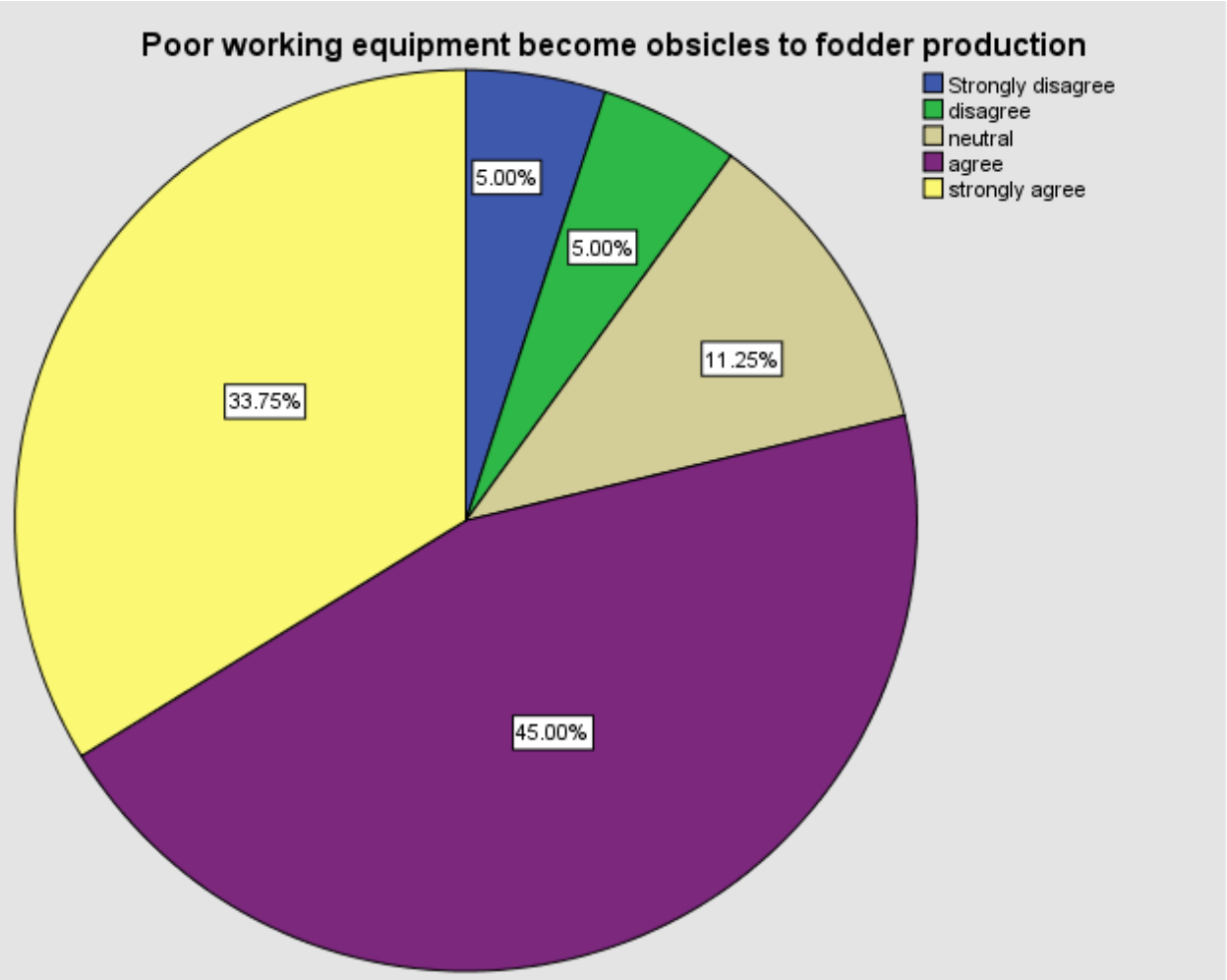
Respondents by lack of security, road closure and in efficiency infrastructure to delay more commodities.



Source: Primary data, February, 2024

According to the figure about the respondents for their lack of security and road closure inefficiency infrastructure affected to pass the commodity from the production site to the fodder demanders. About 46.3% of the respondents were agree while about 27.5 % respondents were strongly agree lack of security and road closure were impacted to their business, respectively while 11 % of the respondents were neutral and 7.5% of the respondents were strongly disagree and disagree that lack of security was not major obstacle they were faced during their production. This indicated that majority of the respondents were suffered one of their lifetimes for road closure, poor infrastructure and so on.

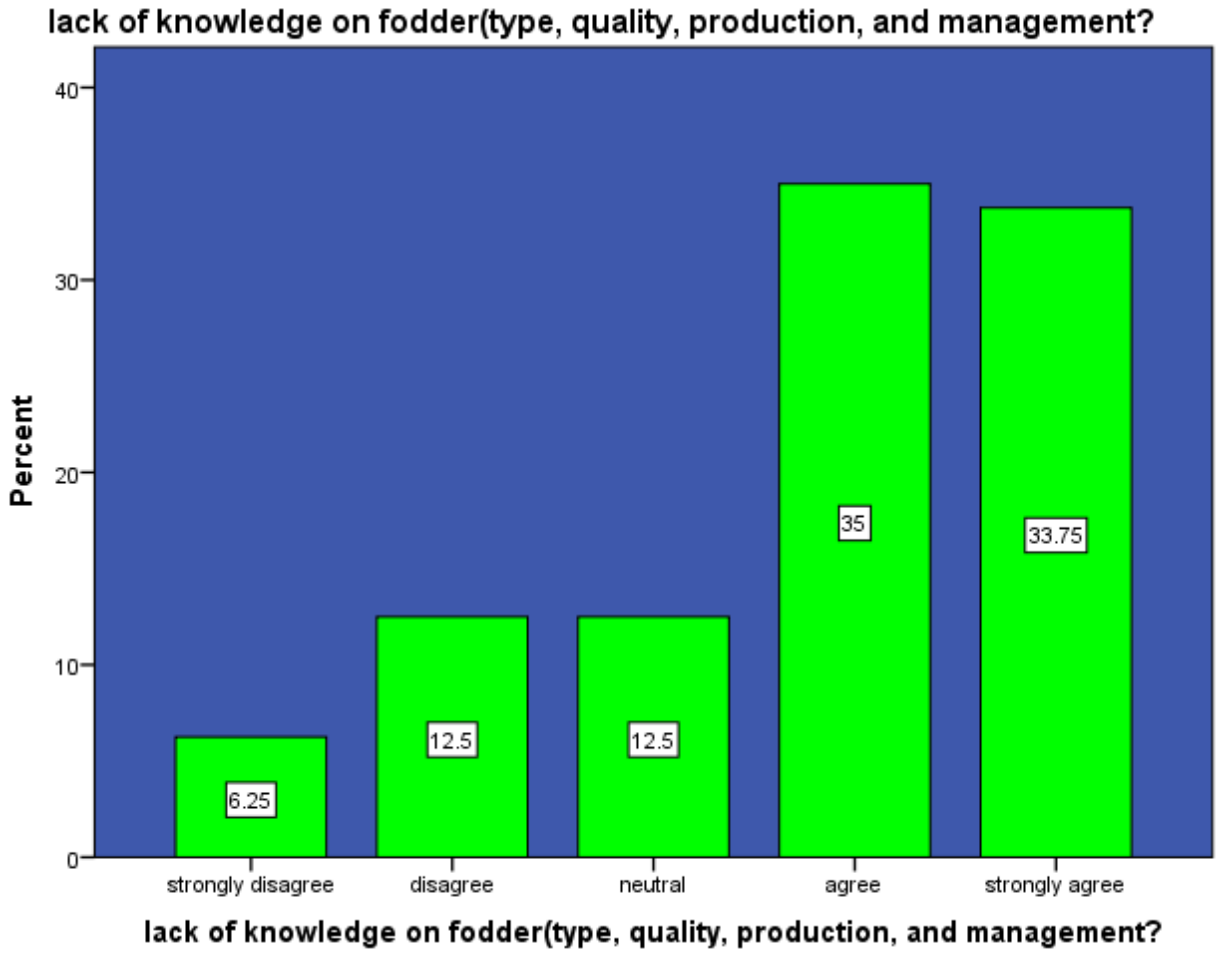
4.2.8 Poor working equipment become obstacles to fodder production



Source: Primary data, February 2024.

According to the figure about whetherPoor working equipment become obstacles to fodder production affected on fodder production, about 45% of the respondents agreed there were affected by Poor working equipment become obstacles to fodder production while 33.8% of the respondents were strongly agreed but there were 11.3% responded they neutral the possibility of any affect Poor working equipment become obstacles to fodder production, 5% respondents were disagree and small group of there respondents 5% were strongly disagree. Above mentioned figures indicate that the majority of respondents in the study area strongly believed Poor working equipment become obstacles to fodder production.

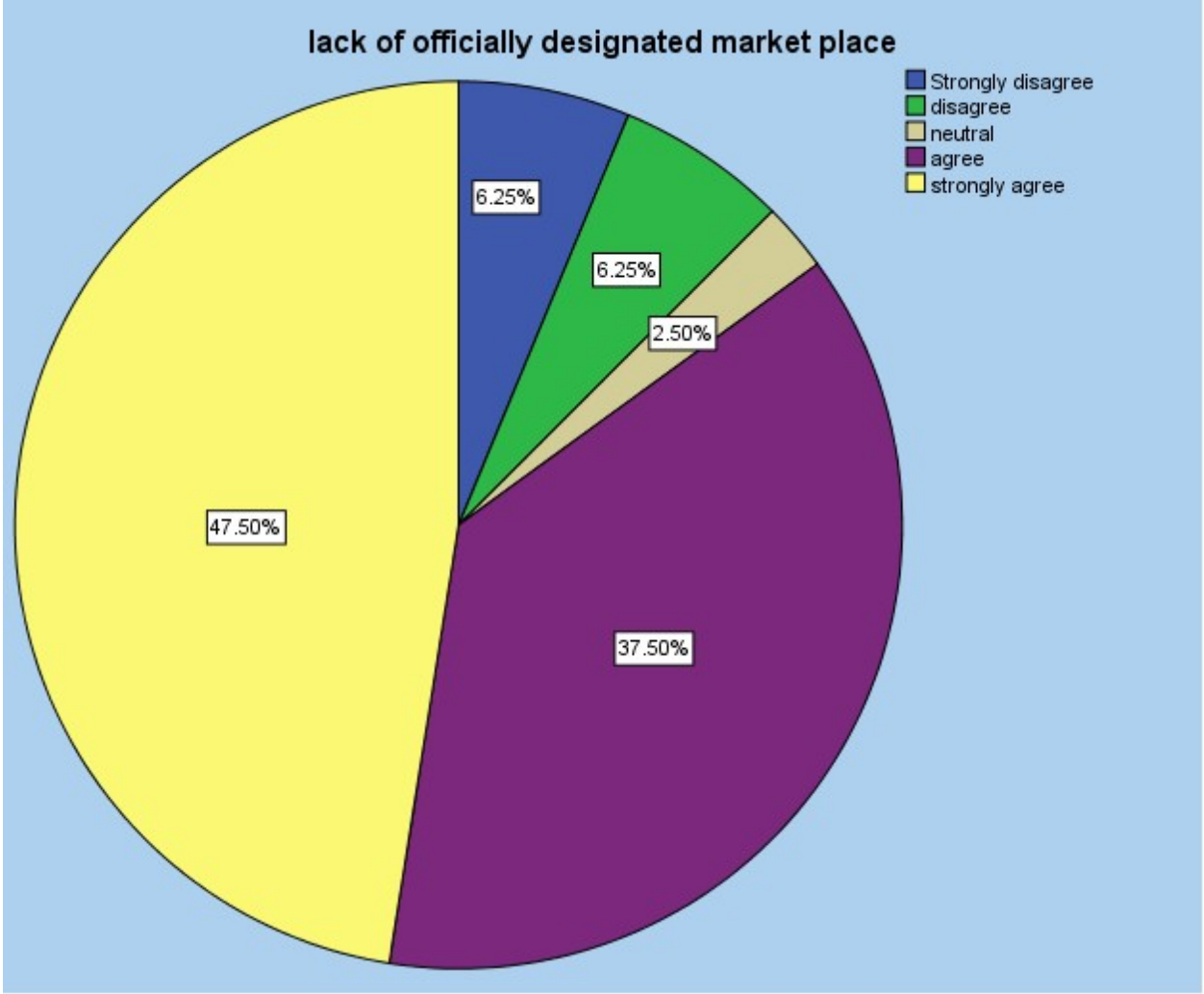
Lack of knowledge on fodder (type, quality, production, and management)



Source: Primary data, February 2024.

According to the figure 4.2.9 the researchers asked the respondents about whether lack of knowledge on fodder (type, quality, production, and management) affected their production, about 35% of the respondents were agreed that there was an affect for the lack of knowledge on fodder , about 33.75% of the respondents strongly agreed there were an affect while 12.5% of the respondents disagree the possibility of any effect of lack of technical experience to the fodder production 12.5% neutral & dis agree were same respondents and small group of respondents about 6.25% were strongly disagree. This indicates that most of the respondents believe that knowledge on fodder (type, quality, production, and management) was an crucial to the sector.

Lack of officially designated market place

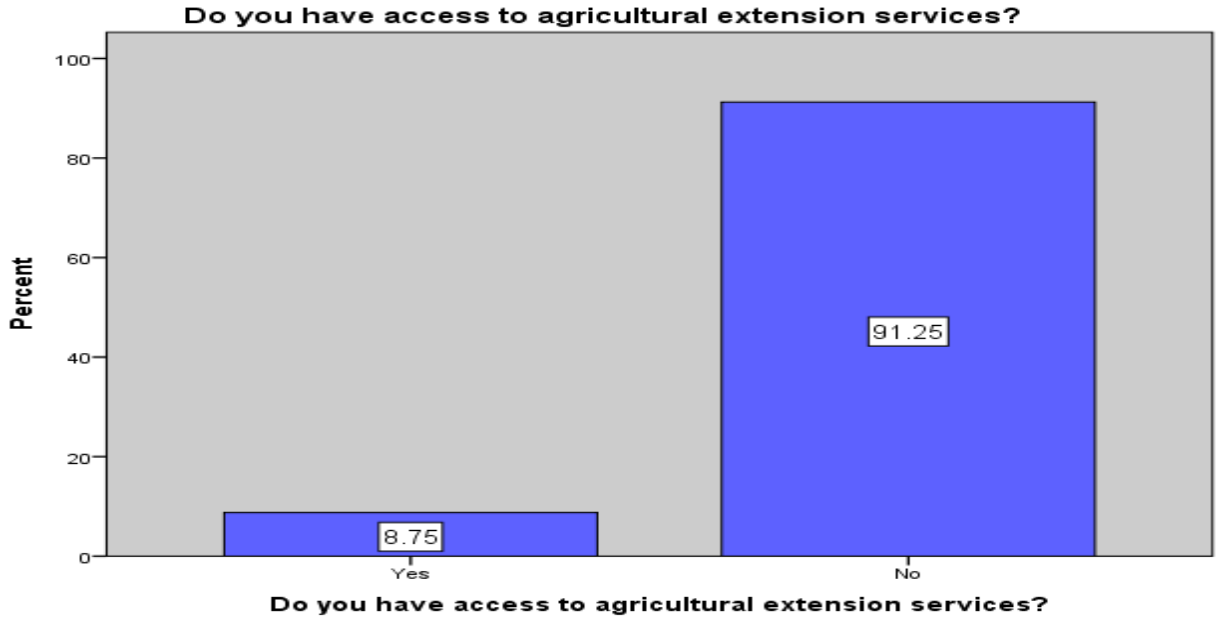


Source: Primary data, February 2024.

According to the figure the researchers asked the respondents about whether lack of officially designated market place affected their production, about 47.5% of the respondents were strongly agreed that there was an affect for the lack of officially designated market place, about 37.5% of the respondents agreed there were an affect while 6.3% of the respondents disagree the possibility of any effect of lack of officially designated market place, about respondents 6.3% were strongly disagree and small group of respondents about 2% were neutral. This indicates that most of the respondents believe that was a consequence market place to the fodder production.

Estimating opportunity of fodder production

Do you have access to agricultural extension services?



Source: Primary data, February 2024.

According to the figure 4.3.1 above mentioning about whether the respondents have access to agricultural extension services the majority of the respondents about 91.25% were have no access to agricultural extension services while small group of the respondents have access to agricultural extension services there was significance of crop productions to the respondents in the study area.

Do you get grass seeds from local market?

Source: Primary data, February 2024.

According to the figure above mentioning about whether the respondents get grass seeds from the local markets, the majority of the respondents about 81.3% were no getting grass seeds to the local markets while small group of the respondents were answered that there was getting any grass seeds to the local markets which indicates the importance of fodder to the respondents in the study area.

4.2. Discussion

According to study Growth, yield, competition and economics of groundnut/cereal fodder intercropping systems in the semi-arid tropics of India the increasing human population pressure and its ramifications resulted in a demand for more food, thus diverting the attention of farmers to food crop production and rendering forage farming a secondary priority. This neglect of forage crops led to a decline in the productivity of livestock (Mal, 1998). According to the National Commission on Agriculture, the green fodder requirement for the existing livestock in India is around 1136 Mt, whereas the availability is 695 Mt, indicating a 61% deficit in fodder supply, (Singh & Roy , 1999) Further, fodder availability in the dry season is scarce and costly

The study of evaluation of potential, opportunities and gaps of fodder production in Afgooye district revealed that the vast majority of some who responded 76.3% of respondents said they didn't grow fodder, but a small number said they did. 23.8% of those polled said they were cultivated fodder. And 40% respondents were cultivated Maize, 36.25% respondents were cultivated sorghum, 12.5% respondents were cultivated other legume fodder, 7.5% respondents were cultivated alfalfa and 3.75% respondents cultivated Sudan grass. the majority of the 40% respondents were cultivated Maize, 36.25% respondents were cultivated sorghum, 12.5% respondents were cultivated other legume fodder, 7.5% respondents were cultivated alfalfa and 3.75% respondents cultivated Sudan grass.

When the researchers asked the respondents if a lack of technical expertise in fodder production affected their output, 43.8% said yes, 35% said yes strongly, and 12.5% said no. This implies that the majority of respondents believe technical expertise is critical to the sector.

43.8% of respondents strongly agreed that environmental restrictions were a large problem for their manufacturing, while 35% agreed that environmental constraints were a big problem for their production. Around 10% of respondents disagree that environmental constraints are a factor, 6.3% strongly disagree, and a tiny fraction of 5% are neutral. Similar study of Drought and its impacts in Ethiopia , climate variability and extreme weather events (drought) threatens the livelihood of many populations throughout the world. Available reports suggest that the recurrence period of such extreme climatic events (drought) is shortening (Blunden, Arendt, 2012, & Gutierrez et al., 2014, 2013)Drought in Ethiopia has shown a spatial and temporal distribution over the last fifty years and there are certain regions in the country that are affected by drought more frequently; the eastern and south eastern and rift valley regions. The recurrence frequency was one in ten years during earlier periods.

Three decades ago (haile, 1988) reported drought in Ethiopia to occur with 3–5 and 6–8 years in northern parts of the country and every 8–10 years for the whole country .

Approxiamtely 46.3% of respondents agreed, while about 27.5% strongly agreed that lack of security and road closure had an impact on their production, respectively, while 11% of respondents were neutral, and 7.5% strongly disagreed and disagreed that lack of security was not a major obstacle they faced during their production. This revealed that the majority of the respondents had experienced road closures, poor infrastructure, and other similar issues at some point in their lives. 40% of respondents agreed that poor seed germination had an impact on their production, while 25% strongly agreed. However, 7.5% of respondents disagreed that poor seed quality had an impact on their production, and a small group of respondents about 4% strongly disagreed on that factor, 6.3% were neural, and a small group of respondents about 5% strongly disagreed on that factor. According to the numbers above, the majority of respondents in the research area firmly agreed that the lack of improved seed for fodder crop varieties was a major factor.

About 41.3% of respondents strongly agreed that climate change has affected fodder production is a problem during the dry season, while 33.8% agreed but 10% said they were neutral about the possibility of any effect on fodder production is a problem during the dry season due to climate change. About 12.5% of respondents disagreed, with a tiny fraction of about 2% strongly disagreeing on that factor.

About 48.8% of respondents agreed that a lack of capital was a challenge for fodder production on that field, 23.8% strongly agreed, and 11.3% disagreed. About 9% of respondents were neutral, and about 5% strongly disagreed.

Around 40% of respondents agreed, while 36.3% strongly agreed that market fluctuations had an impact on their firm, while 10% of respondents disagreed and 7.5% of respondents were neutral and tiny group. 6.3% of respondents strongly disagreed that market fluctuations were not a big impediment to their productivity. This revealed that the majority of the respondents were concerned about market swings and other such issues.

About 45% of respondents agreed that poor working equipment had become a hindrance to fodder production, while 33.8% strongly agreed. However, 11.3 % of respondents said they were neutral about the possibility of any negative impact from poor working equipment having become a hindrance to fodder production, while 5% disagreed and 5% strongly disagreed. According to the numbers above, the majority of respondents in the research region stated that poor working equipment made fodder production impossible. Roughly 35 % of the respondents agreed that a lack of fodder expertise had an effect, about 5 33.7% strongly agreed, and 12.5 % disagreed that a lack of technical experience may have an influence on fodder production. 12.5 % of respondents were neutral or disagree, and a small fraction of roughly 6.25 % were strongly disagree. This implies that the majority of respondents believe that fodder knowledge (type, quality, production, and management) is critical to the industry.

Approximately 50% of respondents agreed that lack of recognition for fodder trade had an effect; approximately 32.5 % of respondents strongly agreed; and approximately 7.5% of respondents disagreed that lack of recognition for fodder trade had any effect; approximately 7.5 % of respondents strongly disagreed; and a small group of respondents about 2.5% were neutral. This suggests that the majority of respondents feel that fodder trade was important to fodder production. About 38.8 % of respondents disagreed that the lack of efficient modes of transportation had no effect, about 18.8 % of respondents were neutral, and 16.3 % of

respondents strongly disagreed that the lack of efficient modes of transport had any effect, about 13.8 % of respondents agreed, and a small group of respondents about 12.5 % strongly agreed, about 47.5 % of respondents strongly agreed that the lack of an officially designated market place had an effect, about 37.5 % of respondents agreed that there was an effect, while 6.3 % of respondents disagreed that the lack of an officially designated market place had any effect, about 6.3 % strongly disagreed, and a small group of respondents about 2% were neutral. This shows that the majority of respondents thought it was a significant market for fodder production. 47.5% of respondents agreed that disease and weeds had an impact on fodder output, while 32.5 % strongly agreed. About 7.5 % of respondents, on the other hand, were neutral. Only 5% of respondents strongly disagreed with the statement that disease and weed problems were not a big impediment to their productivity.

Accourding the research of Department of Grain Legumes and Technical Crops, Agritec Plant Research, Ltd., Šumperk, of Czech Republic , Intercropping pea with barley reduced the level of ascochyta blight (Mycosphaerellapinodes) in the peas, and the levels of net blotch (Pyrenophorateres), brown rust (Pucciniarecondita) and powdery mildew (Blumeriagraminisf.sp. hordei) were reduced on the barley plants in every intercrop as compared to the barley monoculture (kinane & Lyngkjaer M.F., 2002).The plant diversity in an intercrop generates the basis for a more diverse development of beneficial predators limiting pest propagation (Hauggaard-Nielsen & Andersen 2000). As pesticides are not allowed in organic farming, the weed, disease and pest-reducing effects make intercropping of cereals and legumes especially interesting in such farming systems.

Approximatley 26.3 % of respondents strongly disagreed that low purchasing power of consumers had no effect on their production, while 37.5% disagreed there was an effect, and 13.8 % agreed there was a possibility of a low purchasing power of consumers effect on their

production, with 13.8% strongly agreeing and a small group of respondents, about 7%, neutral. The majority of respondents (93.75%) do not have access to financial services such as crop insurance, input financing, or loans, while a minor percentage of respondents do have access to financial services such as crop insurance, input financing, or loans. Crop insurance, input financing, and loans are all crucial financial services that help farmers increase their production. 81.3% of respondents do not have access grass seeds to the local markets while small group of the respondents were answered that there was getting any grass seeds to the local markets which. The majority of respondents (86.3%) indicated they did not sell fodder production as hay or silage at markets, whereas a tiny group said they did sell fodder production as hay or silage at markets. 65% of respondents reported they didn't acquire market information for fodder prices from the markets, whereas a tiny percentage said they did get market information for fodder prices from the markets.

5. CONCLUSION

The researchers met all of their study objectives and came up with a beneficial conclusion. The majority of the respondents (76.3%) were male, while only 23.8 percent were female, according to the study. The researcher discovered that 62.5 percent of the respondents were married, while 18.8% were divorced. However, 1 6.3% of the respondents were single, and 2.5%were just window. According to the educational background, 43.8%were illiterates, 36.3%had primary school, and 13.8%had secondary education. The bulk of the respondents were farmers, with 66.25%being farmers, 28.75 percent being livestock keepers, and 5% being fodder traders, according to the study. Majority of the 40% respondents were cultivated Maize, 36.25% respondents, And Land sizes of farmers were 33.75% the respondents between 2-4ha. About 86.3% of respondents were answered that there was not

selling fodder production as: hay or silage from the markets. And 56.25%, respondents have notaccess your inputs like seeds, fertilizers. While 76.3% respondents didn't cultivated fodder while small group 23.8% respondents were cultivated fodder.

When the researchers asked the respondents if their productivity was impacted by a lack of technical skill in fodder production, 43.8% said yes. We agree that disease and weed concerns are difficulties for the respondents. Droughts and rain shortages were cited as examples of environmental limits that had a significant impact on the business. 46.3% of respondents agreed that a lack of security and inefficient road infrastructure made it difficult to get the goods from the production site to the fodder demanders. Poor seed germination quality was cited by 40% of respondents as having an impact on their productivity. The majority of respondents agree there is lack of capital challenging for fodder affected their production.The majority also agree that there's a lack of knowledge on fodder (type, quality, production, and management) can affected their production. Also there is lack of recognition for fodder trade. Lack efficient means of transport affected also is major problem for famers. The majority of respondents agree that agricultural extension services, financial services such as crop insurance, input finance, loans, local seed and forage bank are not available in study area afgooye.

6. RECOMMENDATIONS

To improve the marketing and profitability of fodder products, the hay and grass seed markets must be formalized, as well as the grass seed certification process made reasonable and simple for producers. To assist fodder dealers in commercializing of fodder in the markets and gaining access to agricultural extension services such as forage banks and seed

germination quality testing. To develop strategies and make attempts to improve financial institutions such as crop insurance and loan in Somalia (afgooye) Provide both Farmers and livestock keepers, adequate training and technical skills to improve their knowledge for fodder crop production. Follow recommended best management practice (BMP) for all aspects of Drought and Rain failure, the farmer should provide well water storage, using by when the water shortage existing or when rain failure exists.

When drought exists, Livestock farms prepare for drought by holding stocks of grain and hay and reducing livestock herd size. More generally, diversification—undertaking a variety of crop and livestock activities, or farming in multiple locations—can help farmers reduce their risk exposure.

Implementation of land reforms for improving the production of fodder crop quality inputs (improved seeds and fertilizers) are essential to raising productivity under both rained and irrigated conditions Control On regular cleaning and management by using different methods of biological, physical, cultural, and chemical Also prohibition and quarantine to prevent common disease and weeds in the fodder crop he government of Somalia should Make constant fulfillment as any side that are helpful to the farmers to increase their economic growth Farmers should provide machines that are helpful or that can do raising beds and sowing seeds in order to grow and improve their production productivity.

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