

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Public Opinion on Problems Faced in Agriculture

Thajith D*

^a Student, Saveetha School of Law, SIMATS, Chennai 600077, India thajithviji@gmail.com

ABSTRACT

Agriculture is of critical importance for the region. it's undergoing a process of transition to a free enterprise, with substantial changes within the social, legal, structural, productive and provide set-ups, as is that the case with all other sectors of the economy. The objectives of the research is to work out the perception of respondent if the govt gave enough plans to market agriculture and to analyse the agreeability towards the statement "people who do agriculture goes down" and to look at the main problems faced by farmers in agriculture and to analyse the opinion on how can we promote agriculture. The research method followed is descriptive research, the info is collected through a questionnaire and therefore the sample size is 231. Convenience sampling method is adopted within the study to gather the info. The samples were collected from friends and relatives to the researcher. The independent variables are gender, age, educational qualification, occupation, living place. The dependent variables are respondents thought of state plans on agriculture, agreeability towards the statement "people who do agriculture goes down", major problems faced by farmers in agriculture, opinion on how we will promote agriculture the researcher used graphs to analyse the info the result from the research shows that respondents are agree that agriculture goes down and it facing major problems and that they are able to do agriculture if its give enough money to run their life independently. The researcher suggests that young generation must give attention to the agriculture and find some ways to market agriculture and provides food to the people enough as in olden days and made the planet a nonstarvable one.

Keywords: Agriculture, Farmers, Government, Food, Youngsters

1. Introduction

Agriculture is the art of cultivating the soil, growing various crops and raising the livestock. It includes the preparation of plant and animal products for humans to use and their distribute to markets. Agriculture produces most of the world's food and fabrics. The history of agriculture begins thousands of years ago. gathering wild grains begins a minimum of 105,000 years ago, farmers began to plant them around 11,500 years ago. Pigs, sheep and cattle are domesticated before 10,000 years. Nearly one-third of the Indian GDP growth is contributed by agriculture practices. it's the source of income and job for the main a part of country. India is understood because the land of farming. There are some challenges that these farmers need to face. it's not considered as a serious profession. Government agencies will promote local agricultural products, provide food safety and inspection services, conservation and environmental protection. State policies regulate the assembly, transportation, processing, and marketing of commodities. Federal policies impacting the domestic economy, foreign affairs, and trade initiates all can have a big impact on the agricultural sector. The modern youth are disguised with agriculture and are shunning it as a profession. The farming population is, consequently, getting old. However, like their urban counterparts, the agricultural youth also are trying to find better career and growth prospects which they are doing not foresee in rural areas

Objectives

- To determine the perception of respondent if the government gave enough plans to promote agriculture
- To analyze the agreeability towards the statement "people who do agriculture is going down"
- To examine the major problems faced by farmers in agriculture
- To analyze the opinion on how can we promote agriculture

1.1 Review of Literature

Pfeiffer, J., Gabriel, A. & Gandorfer, M. (2020), analyse whether people in Germany accepts digital farming or not, the sample size is 2012 and therefore the data is collected in Germany, by this research, the researcher insist that the agriculture as an entire is criticized by many groups in Germany, it's unlikely that benefits from digitalization will significantly increase the general public acceptance of agriculture as an entire. Mayuzumi, Y. (2020), analyse whether the longer term of agriculture is applicable in tourism islands of developing countries, the sample size is 604 and it's collected from students and kids in Indonesia, during this research About half the children in Balli island in Indonesia select tourism industry about proceeding career choice then they choose tourism than agriculture. Fountas, S., Blackmore, S., Ess, D. et al. (2005), examines the experience of farmers of agriculture in Denmark and USA, the sample were sent to 580 farmers and 198 responses were received, during this research, About 80% of the respondents would

really like to store the PA data themselves, the bulk of the respondents indicated that they need changed their management practices thanks to PA, but not substantially. Md. Fakrul Islam (2016), done a survey on socio econmics about agriculture in areas of Dalia and gazoldoba, the samples are collected from 14 villages of two unions on bank of teesta river and 10 villages in jagalpuri district in India, results of two follow-up field surveys on "changes in socio-economic and environmental situations within the Dalia irrigation project area during 2002-2007 and 2010-2014" Balz, A.G., Heil, E.A. & Jordan, (2015), examines whether nutrition sensitive agriculture, a replacement word or concept, a questionnaire-based survey was conducted with representatives from 18 agricultural ministries of varied countries at the worldwide Forum for Food and Agriculture 2014 in Berlin, where 65 agricultural ministers participated, during this context, nutrition-sensitive agriculture has been introduced. Nutrition-sensitive approaches generally aren't new. Ura K., Stringer R., Bulte E. (2009), analyse the way to manage wildlife damage to agriculture includes conflicts, cost and compromise, sample size is 560 households in areas of Bhutan, Conflicts between wildlife and agriculturae are a dominant problem in Bhutan terrotory, with policy debates focusing increasingly on whether most of the conservation costs are borne directly by the tiny producers and rural poor through crop losses and labor time diverted to guarding crops and improve livestock Tajuddin KhanM., Joshi.P.K., Kishore.A., Pandey.D. (2019), Measures for Reducing Vulnerability to Climate Extremes in Agriculture: Lessons from the Case of Unseasonal Rainfall, the sample size is 800 farmers in 12 affected districts of the states of Haryana and Punjab, The study also indicates that improved drainage in fields and meteorology could also help. In fact, the survey revealed that around 20-30% farmers were ready to reduce their losses in a minimum of one plot. Casagrande, M., Peigné, J., Payet, V. et al.(2016), examines the motives and challenges of organic farmers for adapting conservative agriculture, the sample size is 159 farmers located in 10 different countries of Europe, the research demonstrated Agro-technically challenged farmers mainly expressed agronomic problems and challenges, there have been no clear effects of location or farm characteristics explaining these attitudes, but they trusted farmers' environmental concerns and beliefs. Mante, J., Gerowitt, B. (2007) done a survey of on-farm acceptance of low-input measures in intensive agriculture., The sample size is 865 farmers in arable regions, the research findings show that the subsidising institution has in many respects a central influence on the choice process of the farmer to adopt low-input measures. Specht, K., Weith, T., Swoboda, K. et al. (2016), examines whether agriculture a socially acceptable urban business, sample size is 386 and it's collected from Berlin, Germany, quite 80 you look after the respondents preferred having accessible systems like public green spaces, intercultural gardens, and rooftop gardens, the very best degree of acceptance is reached for multifunctional urban agriculture that mixes commercial with ecological and social goals. Dehnen-Schmutz, K., Foster, G.L., Owen, L. et al.(2016), Exploring the role of smartphone technology for citizen science in agriculture, the sample size is 57 farmers from Britain and France and therefore the survey is conducted online, during this research, results show that 89 % respondents owned a smartphone, 84 which may be employed it for farm management, and 72 which may be employed it on a day to day, Farmers also shows strong attention to participate in citizenship science projects, often willing to commit substantial amounts of their time. Vijaya Bhaskar, A.V., Nithya, D.J., Raju, S.(2017), Establishing agriculture-nutrition programmes to diversie household food and diets in India, the sample size was 600 and sample of 300 households in Wardha and 300 in Koraput in India, the research findings indicated severalareas for action to enhance household food and nutrition security in both Wardha and Koraput reflected the influence of local socio-economic and environmental aspects, farm-household deciding and therefore the choice and opportunities of farming approaches. Blasi, E., Cicatiello, C., Pancino, B., (2015), analyse whether alternative foods chains as how to embed mountain agriculture within the urban market, the sample size is 745 and picked up in Trentino, Italy .the researcher study the case of Trentino, an Italian Alpine region where food chains are quickly develop, by compare the event of other markets during this context with other Italian peri-urban areas. Torquati, B., Tancini, C., Paffarini, C. (2015), done a Empirical survey on business models of kindergarten farms, the sample size is 722 and is collected from two kindergarten farms in Italy , The results show that the kindergarten farms offer a replacement thanks to achieve economic diversification, to supplement the incomes of rural people, to support exchange between generations, and to scale back the general public cost of social services. Welteji, D., Zerihun, B. (2018), analyse agriculture- tourism nexuses, in bale park, south Ethiopia, the sample size is 372 households in southern Ethiopia, Linkage of tourism with agriculture is critical for maximize the contributions of local economical and tourism related development. However, these two sectors aren't well linked for sustainable local development in many destinations of developing countries Kattel, R.R., Sapkota, M. (2018), examines drain of agriculture and veterinary graduates to abroad, the sample size is 450 and picked up through online survey, This study identifed that majority of the scholars studying agriculture and veterinary sciences in Nepal are willing to travel abroad either for better education or for better living standard and job opportunities. Mango, N., Siziba, S. & Makate, C (2017) analyse The impact of adoption of conservation agriculture on smallholder farmers, the sample size is 1623 households in Zimbabwe, Malawi and Mozambique, agriculture reduces nitrogen loss within the soil, promotes water and conservation and improves agronomic use efficiency of applied nutrients, impact of conservation agriculture adoption on one among the key livelihood outcome is food security. Makate, C., Makate, M. & Mango, N. (2019), analyse Wealth-related inequalities in adoption of droughttolerant maize and conservation agriculture, the sample size is 601 smallhold farmers from districts in Zimbabwe. Results suggest the necessity for decision makers to think about implementing policies that specialise in the poorer segments of the farming society to alleviate differences within the adoption of such agricultural technologies. Agula, C., Akudugu, M.A., Dittoh, S. (2018), Promoting sustainable agriculture in Africa through ecosystembased farm management practices: evidence from Ghana, the sample size is 300 households and from Ghana, Africa, to market sustainable agricultural production in Ghana et al. in Africa using EBFMBs. Ayerakwa, H.M., Dzanku, F.M. & Sarpong, D.B., (2020) ,analyse the geography of agriculture and food security during a small and a medium sized city in Ghana, the sample size is 2004 households during a small and a medium-sized city in Ghana, participation in agriculture generally matters for the food security of urban households. However, urbanites who produced food in both urban and rural areas had better food security within the medium-sized city.

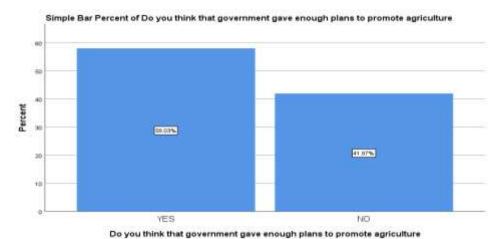
1.2 Methodology

The research method followed is descriptive research. The data is collected through a questionnaire and the sample size is 231. Convenience sampling method is adopted in the study to collect the data. The samples were collected from friends and relatives to the researcher. The independent variables are gender, age, educational qualification, occupation, living place. The dependent variables are respondents thought of government plans on agriculture,

agreeability towards the statement "people who do agriculture is going down", major problems faced by farmers in agriculture, opinion on how can we promote agriculture.

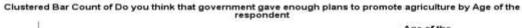
1.3 Analysis

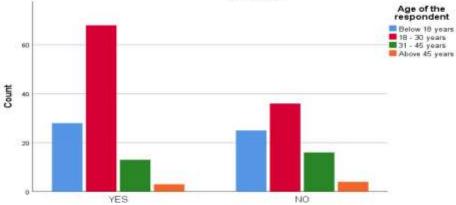
Figure 1



LEGEND: Figure 1 shows that the perception of respondent if the government gave enough plans to promote agriculture

FIGURE 2:

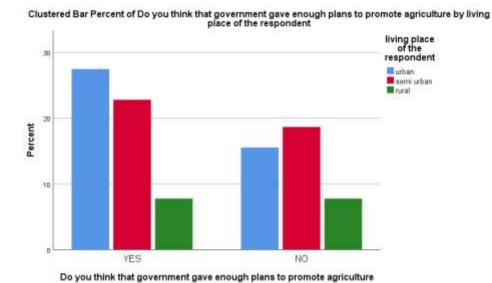




Do you think that government gave enough plans to promote agriculture

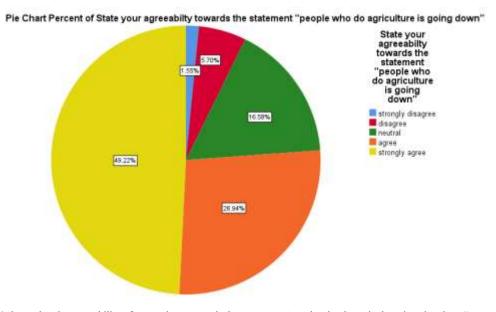
LEGEND: Figure 2 shows that the influence of age on if the government gave enough plans to promote agriculture

FIGURE 3:



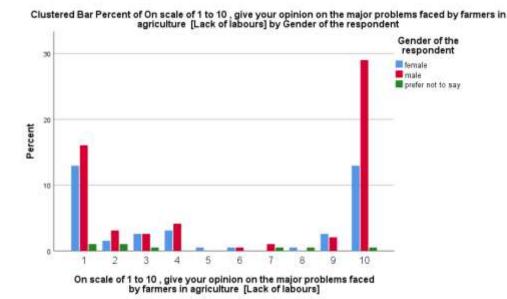
LEGEND: Figure 3 shows that the influence of living place on if the government gave enough plans to promote agriculture

FIGURE4:



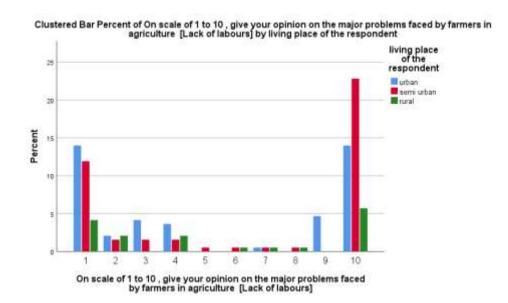
LEGEND: Figure 4 shows that the agreeability of respondents towards the statement "people who do agriculture is going down"

FIGURE 5:



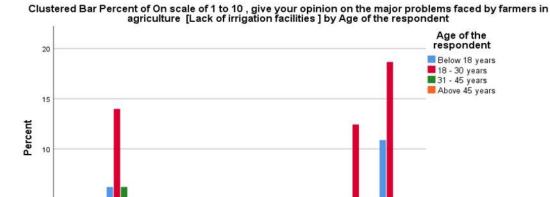
LEGEND: Figure 5 shows the influence of gender on major reason faced by the farmers in agriculture is lack of labours

FIGURE 6:



LEGEND: Figure 6 shows that influence of living place on major problem faced by farmers in agriculture is lack of labours

FIGURE7:



On scale of 1 to 10 , give your opinion on the major problems faced by farmers in agriculture [Lack of irrigation facilities]

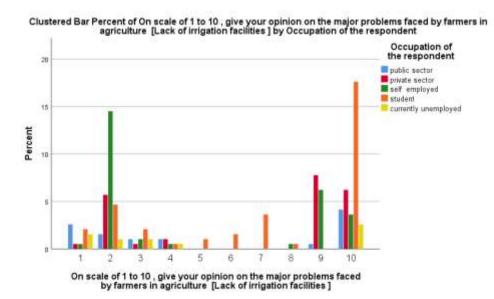
9

8

2

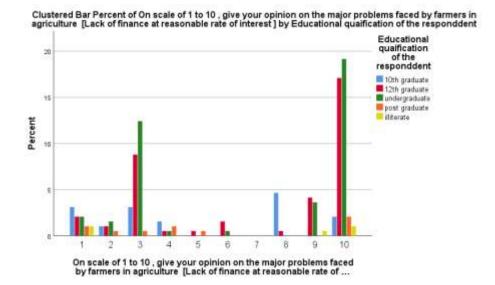
LEGEND: Figure 7 shows that the influence of age in major problems faced by farmers in agriculture is lack of irrigation facilities.

FIGURE 8:



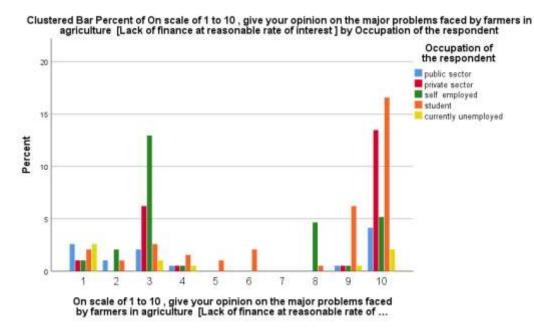
LEGEND: Figure 8 shows that the influence of occupation in major problems faced by farmers in agriculture is lack of irrigation facilities.

FIGURE 9:



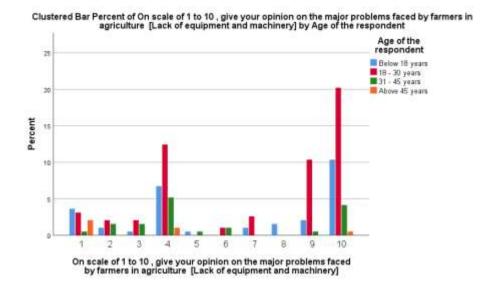
LEGEND: Figure 9 shows that the influence of educational qualification on major problem faced by farmers in agriculture is lack of finance is at reasonable rate of interest

FIGURE 10:



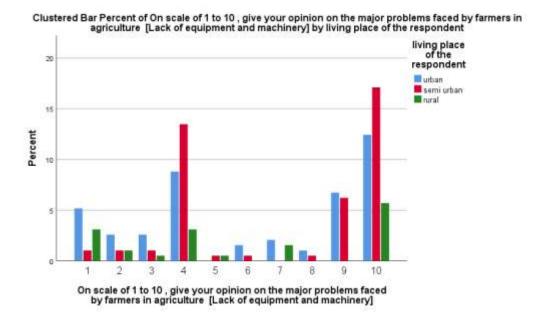
LEGEND: Figure 10 shows that the influence of occupation on major problem faced by farmers in agriculture is lack of finance is at reasonable rate of interest

FIGURE 11:



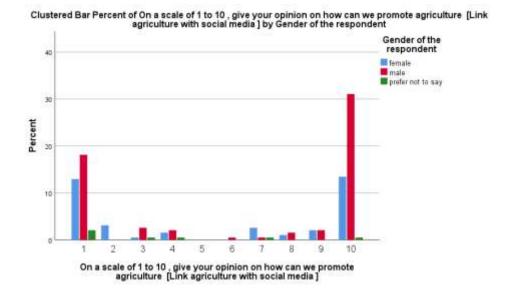
LEGEND: Figure 11 shows that influence of age on major problem faced by farmers in agriculture is lack of equipment and machinery

FIGURE 12:



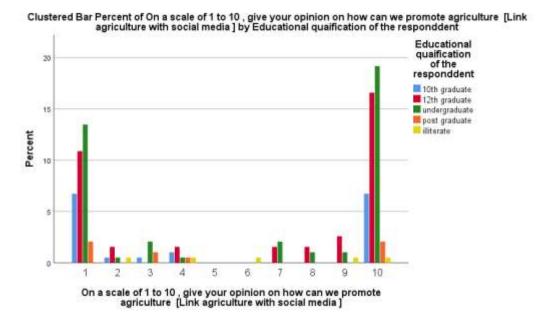
LEGEND: Figure 12 shows that influence of living place on major problem faced by farmers in agriculture is lack of equipment and machinery

FIGURE 13:



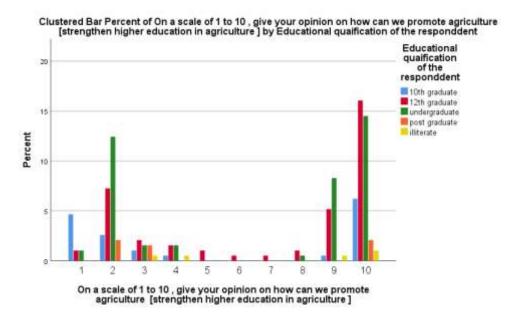
LEGEND: Figure 13 shows that influence of gender on how we can promote agriculture by linking agriculture with social media.

FIGURE 14:



LEGEND: Figure 14 shows that the influence of educational qualification on how we can promote agriculture by linking agriculture with social media

FIGURE 15:



LEGEND: Figure 15 shows the influence of educational qualification on how we can promote agriculture by strengthening higher education in agriculture.

2. Results

Figure 1 shows that nearly 58% of respondents said yes that the government gave enough plans to promote agriculture and the rest nearly 42% of respondents said no. Figure 2 shows that most of the respondents from below 30 years said yes that the government gave enough plans to promote agriculture and majority of above 30 years aged respondents said no. Figure 3 shows that majority of respondents from all living place said yes that the government gave enough plans to promote agriculture Figure 4 shows that nearly 50% of respondents strongly agree with the statement and 27% agree and nearly 17% stay neutral and nearly 6% and 2% respondents disagree and strongly disagree the statement "people who do agriculture is going down". Figure 5 shows that majority of the men respondents in rate 10 that lack of labours is the major problem faced in agriculture and the second preferred rating is 1 for this case and it is vice versa in the case of women. Figure 6 shows that influence of living place on major problem faced by farmers in agriculture is lack of labours Figure 7 shows that the majority of all age groups rate 10 on major problems faced by farmers in agriculture is lack of irrigation facilities and second preferred option is 2 and others are negligible. Figure 8 shows that majority of students, public and private sector occupied and currently unemployed respondents rate between 9 and 10 the most and self employed respondents rate 2 in major problems faced by farmers in agriculture is lack of irrigation facilities Figure 9 shows majority of all eductationally qualified respondents except 10th graduates rate 10 on major problems faced by farmers in agriculture is lack of finance is at reasonable rate of interest and 10th graduates rate on this case. Figure 10 shows majority of respondents in all occupations expect self employed rate 10 on major problem faced by farmers in agriculture is lack of finance is at reasonable rate of interest and self employed respondents rate 3 on this case. Figure 11 shows that the majority of respondents in all age categories rate 10 on major problems faced by farmers in agriculture is lack of equipment and machinery and the second preferable rating is 4 and the other ratings are negligible. Figure 12 shows that the majority of respondents from all living places rate 10 on major problems faced by farmers in agriculture is lack of equipment and machinery and the second preferable rating is 4 and 9 and others are negligible. Figure 13 shows that the majority of respondents of men rate 10 how we can promote agriculture by linking agriculture with social media and the second most preferable option is 1 and vice versa in case of women and the other ratings are negligible. Figure 14 shows that the majority of the respondents on all educationally qualified rate 10 on how we can promote agriculture by linking agriculture with social media and the second preferable response is 1. Figure 15 shows that majority of respondents on all eduactional qualifiacation rate 10 on how we can promote agriculture by strengthening higher education in agriculture and the second most preferable is 2 and the other ratings are negligible.

3. Discussion

In figure 1, most of the respondents said yes because maybe they think that the government introduces various schemes like PKVY, e-NAM to promote agriculture. In figure 2, most of above 30 years aged respondents said no that the government gave enough palms to promote agriculture because of may be they felt that the government schemes does not make an effect on small and medium scale farmers. In figure 3, the majority of respondents from all living places said yes that the government gave enough palms to promote agriculture because maybe respondents from all living places have some knowledge about agriculture and its schemes given by the government. In figure 4, majority of respondents strongly agree with the statement "people who do agriculture is going down" The possible respon could be some people in the society want a regular income to run their families which is not possible in agriculture. In figure 5, majority of men respondents rate 10 on major problems faced by farmers in agriculture is lack of labours the possible reason could be they wanted a job with more income and they did not have intrest to do agriculture so the agriculture have lack in labours. In figure 6, majority of respondents living in semi urban rate 10 that lack of labours is the major problem faced in agriculture because maybe their parents are from

rural which is evoyled for them as semiurban and they know that the lack in labours for doing agriculture. In figure 7, majority of all age groups rate 10 on major problems faced by farmers in agriculture is lack of irrigation facilities the possible reason could be they also experience water scarcity in their area and think of agriculture without water. In figure 8, majority of students rate 10 in major problems faced by farmers in agriculture is lack of irrigation facilities because of maybe thay have been thought for agricultur is going down because it have some water scarcity . In figure 9, majority of all eductationally qualified respondents rate 10 on major problems faced by farmers in agriculture is lack of finance is at reasonable rate of interest because may be there is no bank giving finance for farmers in reasonable rate of interest. in figure 10, majority of all occupied reespondents on major problem faced by farmers in agriculture is lack of finance is at reasonable rate of interest because maybe they think that financiers may have fear about agriculture is temporary because of act of god. In figure 11, the majority of respondents in all age categories rate 10 on major problem faced by farmers in agriculture is lack of equipment and machinery because they might think that the poor farmers have no money to buy some specific equipments and machinery. In figure 12 that the majority of respondents from all living places rate 10 on major problems faced by farmers in agriculture is lack of equipment and machinery the possible reason could be they might think that the cost system of machineres are the same in all cities so that the cost is high for some poor small scale farmers. In figure 13 the majority of respondents of men rate 10 how we can promote agriculture by linking agriculture with social media because maybe they might think that if we connect social media with agriculture it will create awareness among youngsters. In figure 14 the majority of the respondents on all educationally qualified rate 10 on how we can promote agriculture by linking agriculture with social media because maybe they think that the farmers may get the attention of the consumers directly through social media so that each farmer can make their own prices. In figure 15 the majority of respondents on all educational qualifiacation rate 10 on how we can promote agriculture by strengthening higher education in agriculture because maybe they think that the students who pursuing higher agriculture can know various new techniques for agriculture.

4. Conclusion

Agriculture is of critical importance for the region. it's undergoing a process of transition to a free enterprise, with substantial changes within the social, legal, structural, productive and provide set-ups, as is that the case with all other sectors of the economy. In this research, we analyse that perception of respondents on government plans and the problem in agriculture and how we can promote agriculture. By this research, majority of respondents said that government schemes are enough to promote agriculture and most of the respondents rate ten on all categories that major problems in agriculture are lack of labours, lack of irrigation facilities and lack of finance at reasonable rate of interest and lack of equipment and machinery and ways for promote agriculture are link agriculture with social media and strengthen higher education in agriculture and put agriculture on school curriculum and make agriculture more profitable and the respondents strongly agree that the people who doing agriculture is going down nowadays, the result from the research shows that respondents are agree that agriculture is going down and it facing major problems and they are ready to do agriculture if its give enough money to run their life independently. The researcher suggests that young generation must give attention to the agriculture and find some ways to promote agriculture and give food to the people enough as in older days and made the world a nonstarvable one.

References

- 1. Pfeiffer, J., Gabriel, A. & Gandorfer, M(2020). Understanding the public attitudinal acceptance of digital farming technologies: a nationwide survey in Germany. Agric Hum Values . DOI: 10.1007/s10460-020-10145-2(Pfeiffer, Gabriel, and Gandorfer 2020)
- 2.Mayuzumi, Y. (2020) Is there a future for agriculture in world leading tourism resort islands of developing countries? Case study about survey of consciousness about career choice of young generation in Bali, Indonesia. Asia-Pac J Reg Sci 4, 91–110. DOI: 10.1007/s41685-019-00114-x(Mayuzumi 2020)
- 3. Fountas, S., Blackmore, S., Ess, D. et al. (2005) Farmer Experience with Precision Agriculture in Denmark and the US Eastern Corn Belt. Precision Agric 6, 121–141. DOI: 10.1007/s11119-004-1030-z(Fountas et al. 2005)
- 4.Islam M.F. (2016) The Field Survey: A Comparative Socio-economic Survey on the Dalia and Gazoldoba Areas. In: Water Use and Poverty Reduction. New Frontiers in Regional Science: Asian Perspectives, vol 8. Springer, Tokyo. DOI:10.1007/978-4-431-55172-0_3(Islam 2016)
- 5.Balz, A.G., Heil, E.A. & Jordan, I. (2015) Nutrition-sensitive agriculture: new term or new concept?. Agric & Food Secur 4, 6. DOI: 10.1186/s40066-015-0026-4(Balz, Heil, and Jordan 2015)
- 6.Ura K., Stringer R., Bulte E. (2009) Managing Wildlife Damage to Agriculture in Bhutan: Conflicts, Costs and Compromise. In: Lipper L., Sakuyama T., Stringer R., Zilberman D. (2009) Payment for Environmental Services in Agricultural Landscapes. Natural Resource Management and Policy, vol 31. Springer, New York, NY. DOI: 10.1007/978-0-387-72971-8_12(Ura, Stringer, and Bulte 2009)
- 7.Tajuddin Khan M., Joshi P.K., Kishore A., Pandey D. (2019) Policy Measures for Reducing Vulnerability to Climate Extremes in Agriculture: Lessons from the Case of Unseasonal Rainfall in Haryana and Punjab, India. In: Pal B., Kishore A., Joshi P., Tyagi N. (eds) Climate Smart Agriculture in South Asia. Springer, Singapore. DOI: 10.1007/978-981-10-8171-2_8(Tajuddin Khan et al. 2019)
- 8. Casagrande, M., Peigné, J., Payet, V. et al. (2016) Organic farmers' motivations and challenges for adopting conservation agriculture in Europe. Org. Agr. 6, 281–295. DOI: 10.1007/s13165-015-0136-0(Casagrande et al. 2016)
- 9.Mante, J., Gerowitt, B.(2007) A survey of on-farm acceptance of low-input measures in intensive agriculture. Agron. Sustain. Dev. 27, 399–406. DOI: 10.1051/agro:2007038("Website" n.d.)

10.Specht, K., Weith, T., Swoboda, K. et al.(2016) Socially acceptable urban agriculture businesses. Agron. Sustain. Dev. 36, 17. DOI: 10.1007/s13593-016-0355-0(Specht et al. 2016)

11.Dehnen-Schmutz, K., Foster, G.L., Owen, L. et al.(2016) Exploring the role of smartphone technology for citizen science in agriculture. Agron. Sustain. Dev. 36, 25. DOI: /10.1007/s13593-016-0359-9(Dehnen-Schmutz et al. 2016)

12. Vijaya Bhaskar, A.V., Nithya, D.J., Raju, S. et al. (2017). Establishing integrated agriculture-nutrition programmes to diversify household food and diets in rural India. Food Sec. 9, 981–999 DOI: 10.1007/s12571-017-0721-z(Vijaya Bhaskar et al. 2017)

13.Blasi, E., Cicatiello, C., Pancino, B. et al(2015).. Alternative food chains as a way to embed mountain agriculture in the urban market: the case of Trentino. Agric Econ 3, 3 DOI: 10.1186/s40100-014-0023-0(Blasi et al. 2015)

14.Torquati, B., Tancini, C., Paffarini, C. et al. (2015) Empirical survey on business models of kindergarten farms. Agric Econ 3, 25. DOI: 10.1186/s40100-015-0043-4(Torquati et al. 2015)

15.Welteji, D., Zerihun,(2018) B.Tourism-Agriculture Nexuses: practices, challenges and opportunities in the case of Bale Mountains National Park, Southeastern Ethiopia. Agric & Food Secur 7, 8. DOI: 10.1186/s40066-018-0156-6(Welteji and Zerihun 2018)

16.Kattel, R.R., Sapkota, M.(2018) Brain drain of agriculture and veterinary graduates to abroad: evidence from Nepal. Agric & Food Secur 7, 61. DOI: 10.1186/s40066-018-0213-1(Kattel and Sapkota 2018)

17.Mango, N., Siziba, S. & Makate, C.(2017) The impact of adoption of conservation agriculture on smallholder farmers' food security in semi-arid zones of southern Africa. Agric & Food Secur 6, 32. DOI: 10.1186/s40066-017-0109-(Mango, Siziba, and Makate 2017)

18.Makate, C., Makate, M. & Mango, N. (2019) Wealth-related inequalities in adoption of drought-tolerant maize and conservation agriculture in Zimbabwe. Food Sec. 11, 881–896). DOI: 10.1007/s12571-019-00946-7(Makate, Makate, and Mango 2019)

19.Agula, C., Akudugu, M.A., Dittoh, S. et al. (2018) Promoting sustainable agriculture in Africa through ecosystem-based farm management practices: evidence from Ghana. Agric & Food Secur 7, 5. DOI: 10.1186/s40066-018-0157-5(Agula et al. 2018)

20.Ayerakwa, H.M., Dzanku, F.M. & Sarpong, D.B.(2020) The geography of agriculture participation and food security in a small and a medium-sized city in Ghana. Agric Econ 8, 10. DOI: 10.1186/s40100-020-00155-3(Ayerakwa, Dzanku, and Sarpong 2020)