

# Farming Practice on Crop and Agriculture Sustainability in China

Yuechi Jin, Yujia Zhao, Derong Si, Yutong Xin



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THE UNIVERSITY OF BRITISH COLUMBIA



Vant149 Project

## Introduction

Sustainability is a multi-dimensional object human beings are facing today. Focusing on farming practice is significant in achieving this goal. However, China as a powerful agricultural country which supplies nearly one fifth of the world's grain yield leading economy develops rapidly. However, China also faces many agricultural problems (Yu and Wu, 2018). The studies of Yuling & Lein (2010) having great importance that point out a dry region in north-west China become the biggest problem that China is facing. Huge amount of the deficiency of water is produced, while the soil erosion and pollution has also been enlarged and start to impact the production of agriculture and the environment in China. They suggest that the government should focus on and strengthen the management of water irrigation. At the same time, a receiving of exciting research by Baudron compare and comparative the performance of conservation agriculture and smallholder farming practice method, to investigate which is more suitable for the arid areas in Zimbabwe. In addition, soil erosion in China also is a major threat to food production in farming practice. It leads the crop's nutrients declining and affects the quality of crops reducing soil productivity. The condition of the deteriorative soil effect the farming practice which influence the development of agriculture so that hampering the sustainable development of agriculture (Xie, Y., Lin, H., Ye, Y., & Ren, X., 2019). Therefore, the research question is: According to international students, what are the challenges facing and solutions to achieving sustainable agriculture and farming practices in China's New Green Policy today?

## Aims

**Aims:** This research aims to investigate the challenges and solutions for achieving agriculture sustainable in China. Also, presenting a link, interaction between green policy and farming practices is also another key aim in this research. Last but not least, giving audiences a basic view on Chinese green (develop) policy is another key aims we hold, which is because it's better on understanding issue of sustainability in China.

## Method

### Design

Qualitative research is used in this research. Specifically, semi-structured interview is conducted for gain sufficient data. Due to the COVID 19 globally, our research team are not able to conduct the interview with participants in person on UBC vantage college, therefore it happened online in zoom, with regarding two focus groups, each with three participants. Doing focus groups helps participants more on replenish the answers, which helps this research gain enough and accurate data.

Audio record is used throughout the interview, after transcribing the interview. Thematic analysis is used for evaluation, a priori code and open code is used for data analysis. Through this categorized, data is clearer to analysis the challenge and situation of farming practices to achieve agricultural sustainability under green policy.

Regarding of the issue on participants privacy, unique id is needed when sign in the consent form and won't share any of the data to people outside this research team. Data will be deleted six months after this research complete.

### Participants

As for the participants, they are all international students from China age above 18 years old, who used to enroll in China's educational system. Secondly, all of our participants have middle school or senior high school educational background in Chinese traditional education system which means they have more access to knowledges about political and geographical issues in China, therefore they can understand green policy more deeply.

### Materials

- Informed consent
- Information form
- Debrief form
- Questionnaire
- Interview schedule
- Researcher-created survey

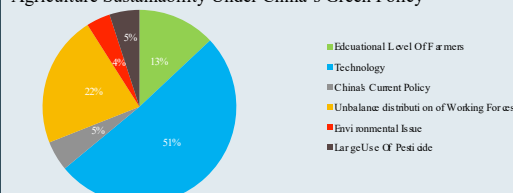
### Procedure

Before the research we asked participants whether they have interests in this study from vantage college who meet the minimum criteria signed up as a participants in this research. Then, participants is requested to signed in the consent form, information form with a unique id. In this process, any of the four researchers' email is provided to make sure everyone is voluntary and have a chance to drop out. After the interview finish, debrief form is sent.

Thirdly, participants were required to complete the demographic questionnaires, who generally ask basic information about themselves. After that, they will be received by emailed the schedule date with specific zoom meeting joining code, with some tips and instructions.

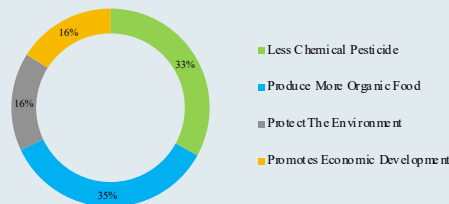
## Results

**Bar Chart 1:** The challenge China Face On Farming Practice For Achieving Agriculture Sustainability Under China's Green Policy

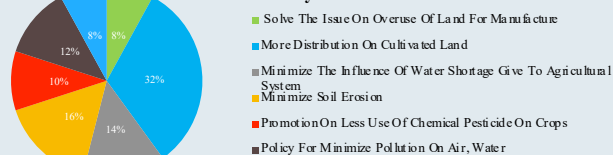


Note\*: 1. The educational level of farmers means some farmers are not educated enough, or under the average education level, which leads to be a challenge.  
2. Technology means technological issue as a challenge.  
3. Unbalance distribution of working forces is a situation that working forces is concentrated in cities for work, rather than farming.

**Bar Chart 2:** The Benefits On Improving Farming Practices Gives For Agricultural Sustainability Under Chinese Green Policy



**Bar Chart 3:** The Solution For Achieve Agricultural Sustainability Under China's Green Policy



## Analysis and Conclusion

Through the two focus groups interviews we conducted during this research, the major challenge on farming practices to achieve agricultural sustainability under green development policy in China can be divided into six components. According to the interview, around 51% of the participants mentioned and agree with the increase in using high technological-based produced in agriculture is the main challenge faced. Using these techniques helps efficiently grow crops instead of handwork. However, limited is accessed and hard to be adapted in farming practices. Second, around 22% of the whole think issue on unbalanced of working forces is an essential challenge. The current situation in China seems that working in big companies is more valued and profitable instead of being a farmer. Therefore the challenge fewer people is working in the agricultural systems is less capable of developing and reform through. Under average education level is also one of the main challenges, with 13% agree with. The large use of pesticide and environmental issue is also the challenge, it affects farmers' ability for growing crops, therefore hard to achieve sustainable agriculture.

However, green development policies are targeting to reform in the agricultural systems for achieving sustainable development. Therefore, our research finds out seven solutions to achieve agricultural sustainability. As data illustrating in Bar Chart 3, the main solutions we find is more distribution on cultivated land. The land is limited in China, if cultivated land is less, fewer crops can grow. Therefore, more allocation on cultivated land can essentially highlight the attention on agricultural and sustainability issue. Along with the green policy, there will be a double win on the land issue and agricultural issue, as farmers can be more motivated on this. Farming practices can be improved if more land is used for practices and scientific research on the improvement of farming practices.

For further research, paying attention to the reformation of farming practice through a different historical period and now in 21 centuries is needed. This is also the topic our research group wants to research further on. Throughout the interview we did, as researchers, we have a deep understanding of challenge and solutions for achieving agriculturally sustainable. It's hard, especially through farming practices. Without high and strong support on agricultural sustainability issue, a lot of time will be consumed on it. But it's valuable and meaningful, as bar chart 2 listed, over 35% agree a sustainable agriculture can produced organic food more, which is better for the whole society.

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## Contact

Yuechi (Cindy) Jin  
(758159236@qq.com)  
Yujia (Rachel) Zhao  
(yuja0811\_zhao@outlook.com)

UBC Vantage College  
The University of British Columbia  
6363 Agronomy Road  
Vancouver BC | V6T 1Z4 Canada  
Tel: 604 827 0337