

Introducing Video Trainings to Bridge
the Gender Gap in Agriculture

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Abstract

Since the Green Revolution of the 1980s, NGOs and government schemes have focused on agricultural productivity in rural India, where 80% of the population's income relies on farming. In the Mewat district of Haryana, the S M Sehgal Foundation has used traditional forms of extension facilitate Farmer Field Schools in order to implement and educate farmers on new farming techniques and strategies, such as proper use of fertilizers and pesticides, how to test soil samples, and how to access credit for inputs. However, while all land is owned by men, women work extensively in the fields but have much less access to agriculture education, inputs, and credit. This phenomenon is known as the gender gap in agriculture. With little to no formal education, SMSF has run into the problem of attempting to teach basic science and agriculture to women who are illiterate. The purpose of this project is to prove that using digital technology and video training modules will be more productive and efficient in educating illiterate women farmers than traditional extension programs. In depth surveys of both male and female farmers in five villages throughout the district will be conducted to determine social constraints women face as well as the accessibility to infrastructure needed to carry out the video training modules in each village as well as the willingness of both men and women to learn from videos. Based on the data collected, digital technology and video training modules will prove to be extremely well accepted in the villages and effective as they can be kept by the women and referred to even after the extension workers have left. Before implementing this program entirely, a trial test of using videos in select model villages would prove effective for evaluating further the benefits of farmer training videos in the education of illiterate women.

I. Introduction

1.1. Acknowledgements

When people ask me how I ended up in India, there are certain people I cannot leave out of the story; people who provided endless support and encouragement and had faith in me, even when I did not. Before any of this report is read, it is important to acknowledge these people and their role in my success as a Borlaug-Ruan Intern.

Firstly, I would like to thank the World Food Prize Borlaug- Ruan Foundation for creating and maintaining the Borlaug-Ruan International Internship program over the last 17 years, and allowing myself and all the other interns to engage in the opportunity of a life time each summer. Thank you to the Board of Directors and Ambassador Quinn for continuing this program and all other youth programs. Your work has brought food insecurity to the forefront of media and education and continues to change students' lives. An endless thank you to Ms. Lisa Fleming and the selection committee for having faith in me even before I did and helping me to see my own potential over the last few months as a BR Intern. I cannot thank Ms. Fleming for her unbelievable commitment to all 23 interns in placing us at sites that suit our abilities and interests, for her lack of sleep to make sure all is well throughout our internships, and for doing everything in her power to ensure each of us had the best experience possible. The success of the BR Interns would not be possible without the combined work of all these people who have put food insecurity first, and taught me, and countless others, how to do so as well.

To the staff members of the S M Sehgal Foundation, my gratitude cannot be extended enough to everyone who took the time to mentor me and lend a hand in creating my project. The never-ending kindness I encountered throughout my two months at SMSF not only helped me to be comfortable and prosperous in my placement. Thank you to Ms. Jane Schukoske, CEO of SMSF, for welcoming me into the foundation and showing me the beauty of India. Ms. Schukoske showed me what achievements I could find one day and continues to serve as a role model for how to use my gifts to make a difference in the world. Mr. Pawan Kumar, my project supervisor and mentor, thank you for sharing your passion for rural agriculture and pushing me to develop my interests into a productive project. From field visits to answering my countless answers, I am beyond grateful for your knowledge and insight that you so graciously shared with me. Thank you to Ms. Padma Seshadri, intern supervisor, for being my Indian mom for two months. Without your support and encouragement, I would not have developed the project I did. Thank you for humoring all of my jokes and never laugh at my stories. Most importantly, thank you for seeing me as a budding scientist, not just another student. And lastly, thank you to the women of Mewat who welcomed me into their homes and villages with hugs, kisses, and songs. Your endearing spirits and defining determination are the reason I will continue to fight for food security.



Picture 1 Ms. Jane Schukoske and Mr. Pawan Kumar

Thank you to my parents, Steve and Diane Hammond, for teaching me to always follow my dreams and dare to a little bit different. And of course, thank you for allowing me to follow my passion 7,549 miles across the world.

Finally, thank you to the two women who introduced me to the world beyond Polk City, Iowa, and pushed me to be the best student, person and world citizen I can be. Mrs. Lori DeBoer, the North Polk Middle/High School Extended Learning Program teacher, and Mrs. Jessica Hebert, North Polk Agricultural Educator, without your belief in me as more than a student, I would have never found my passion for helping women or fighting to end world hunger. From encouraging me to never stop learning to teaching me how to be fearless, I cannot express my gratitude for the role you have played in my life enough.

1.2 Personal Background: From Haiti to the FFA and never ending "Agvocacy"

I have grown up with agriculture my whole life, and I have always been proud of it. But, when you grow up in a small town like Polk City, Iowa, it is easy to forget that there is a world beyond the town, beyond the people, and beyond those cornfields.

It all started with a little blue and gold and a lot of Creed Speaking, and by my freshman year, I was completely hooked on the National FFA Organization. It was in my agriculture education class that I first learned about Dr. Norman Borlaug and that special dwarf wheat variety that put food insecurity in the lime-light and sparked the Green Revolution.

However, it wasn't until that spring that the words "Food is the moral right of all who are born in this world" took on their full meaning. As I spent two weeks living in rural Haiti on a mission trip, I witnessed children going hungry. I watched small-scale farmers struggle with little agriculture education. And I observed the community persevere onwards, despite never-ending hardships. The whole time, all I could think was, "These are human beings. They deserve more". So I went home, determined to be a part of the fight ending world hunger through the means that connects me to them; agriculture.

When my Extended Learning Program teacher, Mrs. DeBoer, gave me the opportunity to participate in the 2014 Iowa Youth Institute, I jumped at the chance to further my knowledge of food insecurity and international agriculture. Several months later, once the Global Youth Institute rolled around, I had never felt surer of what I am meant to do with my life, and applying for the Borlaug-Ruan International Internship was unquestionably the next step in obtaining this goal.

Thanks to strong women like Mrs. DeBoer, my mother, and others in my life, I have found myself drawn to all women in the world as vital players in the equation of ending world hunger. This led me to my determination to work with the women of Mewat and will continue to be at the forefront of all work I do in the future.

1.3 Arriving: People, People, and more People

When I found out I would be going to India for my internship, I was definitely anxious about going to a country so diverse, so rich in history and culture, and so completely opposite of the quiet town I come from. But, I knew going into this that I wanted to work with women farmers and if there is one place in the world to do that, it is India.

I stepped out of the New Delhi airport and already saw more people than I ever had in my whole life: auto and taxi drivers trying to get customers, men sleeping in the parking garage, people just randomly lounging around. I was a world away from Polk City, Iowa; literally. I sought out Arjin, the Sehgal driver who was holding a sign with my name, and sighed a breath of relief at the sight of someone who would soon become a familiar face in a country 1.2 billion.

Of course, the roads were also congested with abnormal amounts of cars and people walking across at odd places because what is a cross walk in this country with no enforced road laws?

Despite the lack of road rules, I was surprised at how good the road conditions were. If it were not for the crumbling buildings, shacks, and countless homeless on the sides of the road, it would almost be like driving through any American city. Arjin happily made small talk with me throughout the drive, and despite the fact I had been traveling for nearly 30 hours, I loved hearing about how, before he began working for Sehgal, he spoke absolutely no English and so he made sure that his kids were getting a good education so they could speak English.

After the 45 minute drive to Gurgaon, we arrived at the S M Sehgal Foundation complex, which hosts four buildings, including the flat-lets I lived and the office building I would work in for the duration of my internship. As we pulled up to the flat-lets, Laxmen, the groundskeeper, appeared and he and Arjin graciously helped me with my two over-packed bags. We made it to my room and as the two of them were attempting to explain, in limited English, where to go for breakfast and how to get there, Omar, another of the interns whose room was next to mine, popped out, welcoming me and explaining that he would take me down for breakfast.

For the first time, I realized that I could survive India.

1.4 *S M Sehgal Foundation*

The S M Sehgal Foundation (SMSF) is a non-governmental organization based out of Gurgaon, Haryana, India. Started by Dr. Suri Sehgal and his wife Edda in 1999, SMSF has a mission “to strengthen community-led development initiatives to achieve positive social, economic, and environmental change across rural India.”¹, SMSF works in the district of Mewat, Haryana, and focuses on five areas of rural development:

1. Good Governance
2. Water Scarcity
3. Agricultural Development
4. Community Media
5. Rural Research

Through these programs, SMSF has expanded into 464 villages and 250,000 people² in not just Haryana, but also the states of Rajasthan and Bihar. SMSF efficiently reaches such a large volume of people through successful extension methods that train locals to become field staff with honed knowledge in specific skills so they can use their knowledge of the village to work with the community members. Field staff conduct daily work in the villages and hold weekly meetings or trainings between field visits from SMSF staff workers. This method allows for there to be a personal connection between the familiar faces that work consistently with the villagers and SMSF itself.

SMSF is dedicated to women equality in all aspects of life: family life, education, health and, of course, agriculture. Because of this, my placement was perfect for me to combine my two passions, agriculture and women, to work in an area important to me with others who share goals.

¹ (About Sehgal Foundation)

² (About Sehgal Foundation)

1.5 *The District of Mewat*

Before working in the district of Mewat, it is important to understand its complex history. Of the 437 villages with a population of 1,089,263, the majority of the people are Meo Muslims, meaning that centuries ago the population converted from Hinduism to Islam when an Islam dictator came to power. When Hinduism regain control, the residents of Mewat were not welcomed back into the Hinduism community, nor were they accepted as Muslims, leaving them isolated from the government and the rest of society for generations.

Due to this history, the district of Mewat has developed at a much slower rate than other surrounding areas of Haryana and is considered by the government to be an Other Backwards class population; or a population that consists of caste groups that have historically been discriminated against both economically and socially.³

Mewat is an agriculturally dominant district with 55% of the working population engaged in the sector. Farmers grow mustard, wheat, cotton, and bajar mostly in two growing seasons under semi-arid conditions. Water buffalo, cattle and goats are raised for milk. Illiteracy remains an acute problem throughout the district. 73% of men are literate while literacy rates for women are at only 37.6%. This stark difference is accounted for in Figure 1.

Religion and cultural traditions play a large role in the lives of Mewat residents. For instance, women live very modestly, covering their hair at all times and faces in the presence of men. The societal norms prohibit women from speaking openly in front of men and allow for men to have more access to education than women. Many women accounted this, and other traditions, to their inability to be successful farmers.

1.6 *Why Women in Agriculture: The Gender Gap*

The gender gap is not a new concept and is recognized in every country, developing or developed, and is found in all aspects of the work force as the phenomenon of women having less access to resources, markets and services than their male counterparts.⁴ In specific regards to agriculture, this means women have less access to agriculture education, inputs, and credit, making it significantly more difficult for women to compete in the agriculture sector.

Agriculture economics in Southeast Asia is comprised of 45% women⁵, making successful extension programs that directly benefit them essential for production rates. In order for production to reach its full potential, therefor, the gender gap in agriculture must be closed. In going about this, it is important to note that both the FAO and the United Nations stress that extension programs that work for men, will not necessarily work for women.

As my research shows, the women of Mewat are disfiguringly disadvantaged due to the gender gap, especially in the area of education. Specifically in the district of Mewat, where agriculture

³ (Mondal)

⁴ (The State of Food and Agriculture)

⁵ (SOFA Team and Doss)

is the main source of income, women are less likely to have an understanding of basic agriculture knowledge or understand why they are practicing certain agricultural techniques such as applying fertilizers. With this knowledge, I focused my research on how SMSF can target these women farmers and what education they hope to gain about agriculture.

II. Implementation of Research

2.1 Program Background

SMSF has two programs currently running in the Agriculture Development field. The first does not work specifically with either gender. This program uses a demonstration comparative method. A field staff will hold a workshop, where an agricultural practice is explained to a group of farmers using literature and diagrams, and the farmers have the opportunity to ask questions or share their ideas. Soil testing, which is a popular topic that many farmers are interested in, can be used as an example for how the program demonstrates a comparison. A staff member of field staff member will conduct a soil test on one farmer's field. When the test comes back and shows what nutrients the plot is lacking in, the staff member will then split the plot in half, and tell the farmer to use their traditional methods of fertilization on one half, and the field staff will apply the recommendations of fertilization acquired from the test on the other half. This demonstration process allows the farmers to see the statistical improvements to their yields based on SMSF's recommendations, and makes them more likely to adopt the practice.

Despite the success of the program, SMSF has found that very few women participate in the workshops. Reasons for this limitation are due to the culture of Mewat, where women may not be comfortable speaking in front of men or having their face visible to men.

The second program, the Krishi Chetna Project, has developed out of an SMSF partnership with IBTADA, an NGO working in the district of Alwar in the neighboring state of Rajasthan. This woman specific program was started in June 2012, with the objective to "create awareness among women farmers on improving soil health and adopting scientific package of practices for pearl millet, mustard, and wheat crops"⁶. The project follows the same model used in SMSF's other program, and successful results in adaptation, yield, and knowledge have been seen in the participants.

The district of Alwar has a very different social setting than Mewat, making it much more viable to work with women farmers. The women are often involved in Self-Help Groups and are more likely to have a higher education. In Mewat, however, women are not allowed to form Self-Help Groups and tend to have lower education levels, making a program like Krishi Chetna not possible in Mewat, which makes the development of a new program for working with women crucial.

2.1 Objectives and Hypothesis

My project supervisor, Pawan Kumar, told me vaguely that my project would be to research different NGOs stationed in Eastern Africa or Southeastern Asian countries working with women

⁶ (Krishi Chetna Project)

in agriculture, but using techniques different than the traditional extension programs already used by SMSF in order to teach illiterate women. I started broad based research over any NGO working with women, but found it difficult to discover any that don't utilize Self-Help Groups.

Eventually, I stumbled upon three NGOs that became vital to my research: Digital Green, STCP, and Access Agriculture. These three organizations all work with video training modules and will be discussed in detail further on in the report, allowed me to develop a narrow hypothesis: **Video training modules are a viable solution when working with illiterate women farmers.** The following sub-hypothesis developed following the main one:

1. Women are subject to having much lower education-levels than their male counterparts.
2. Women face social constraints that keep them from being able to successfully farm.
3. Men and women must be trained separately on different agriculture practices.

With consideration for the main hypothesis, a general objective emerged: **Do villagers have access to the technology necessary to implement video training modules?** Following along the lines of the sub-hypothesis, sub-objectives were determined:

1. What are the reasons behind education level disparities between men and women?
2. Specifically, what are examples of social constraints felt by women farmers that inhibit their livelihoods?
3. Who in the household (man or woman) perform which specific agricultural duties?

2.2 Methodology

The first step in conducting the experiment was to determine the gender issues, agricultural state, and social standing of women in the Mewat district. This step included intense research of the Meo Muslim culture, previous agriculture reports regarding the region, and base level comparative interviews of 116 women farmers and 115 men farmers in five different villages of the district: Goda, Newada, Hameebras, Khohar, and Mundaka. These five villages were chosen based on common social and economic issues.

The survey was conducted in order to best understand the difference in responsibilities between men and women, as well as the social status of women and men's opinions regarding women's social standings. The data collected was necessary for comprehending the type of education needed by the women based on their interests, social factors, and education levels compared to their male counterparts.

The first set of interviews were held in Goda on July 24 with 40 women and 34 men followed by interviews of 12 women and 25 men in Newada and 34 women and 18 men in Hameebras on August 10. The final sets of interviews were on August 11 and included 18 women and 23 men in the village of Khohar and 12 women and 15 men in the village of Mundaka. Interviews lasted about an hour for each gender and were performed in Hindi with the assistance of a translator.

After conducting the interviews, the responses were compiled into a spreadsheet to compare answers across the villages and find common thoughts and issues. From there, the research of other NGOs working with women in agriculture began. It was apparent the women of Mewat had much lower literacy rates than the men, meaning traditional extension programs would not

be as beneficial to them. After narrowing in on video training modules used by many NGOs, the next step was to determine successful programs working with a demographic similar to the women interviewed.

III. Results

3.1 Education Level Disparities

Education is often the main factor in the gender gap, and through my interviews, I discovered this was no different in Mewat. It is important to understand the education accessibility in Mewat, which varies by village. The public school system is supposed to offer standards one through 12; however I found that one village only had access to a school through 8th standard. Beyond this limitation on education, families find it difficult to afford school fees for all of their children. These fees include registration, materials, uniforms and often transportation.

Keeping these costs in mind, it could explain why education levels and literacy rates are so low. The second question asked in the interview with each group was, “What is your highest standard in school reached?” and the stark difference between men’s levels of education and women’s was blatantly evident.

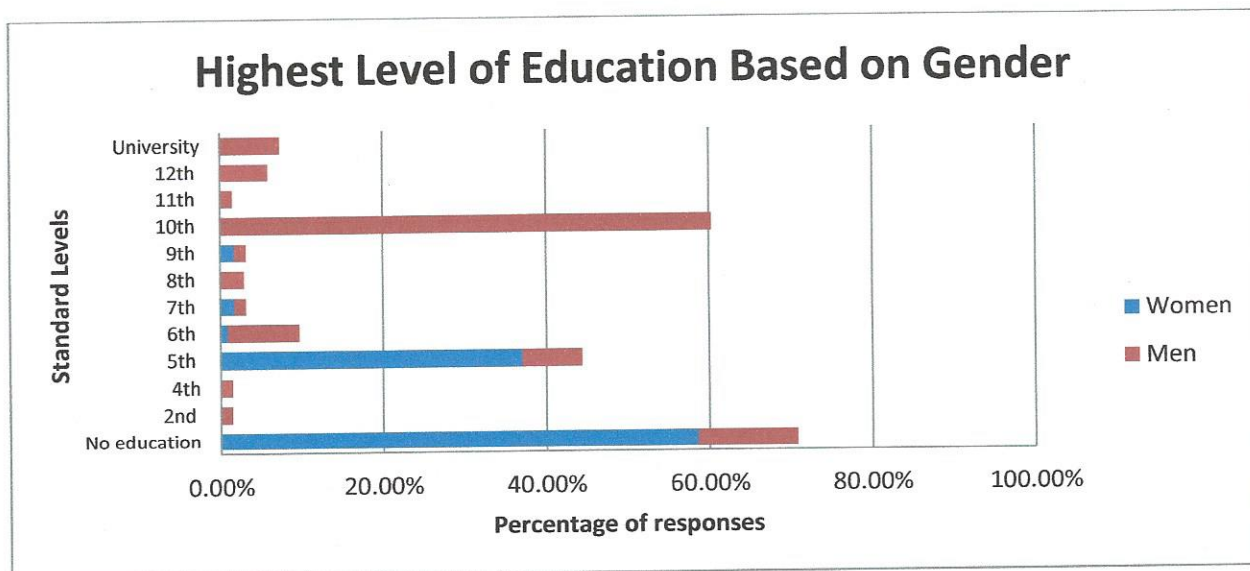


Figure 1 Comparison of education levels between men and women in Mewat

Based on the interview results, women disproportionately never attended school compared to men, and if they had, they dropped out much earlier than their male counterparts. The highest educated women interviewed had completed school through ninth standard, whereas the highest educated men were either enrolled in university or have completed a university education. This lack of education explains the gap in literacy rates among men and women in Mewat and plays a role in women’s ability to maintain agricultural knowledge.

Agriculture is a science based field with biology and chemistry aspects that are difficult to understand if one has little to no formal education. Later in the interviews, we asked both the

men and the women if they felt they understood the knowledge behind agriculture (i.e. reasoning behind application rates of fertilizer, growing seasons, etc.), or if they were simply going through the motions and being doing as they're told. In the responses, men were much more likely to answer that they did grasp agriculture knowledge, stating examples of knowing why certain crops grew better in certain seasons and that if their soil was lacking in this nutrient, they needed to apply this fertilizer. Women, on the other hand, often responded that they did not understand the knowledge behind agriculture, saying that they were just doing as they were told by field staff or their male counterparts. This discrepancy can be accounted for due to the educational disparities between men and women.

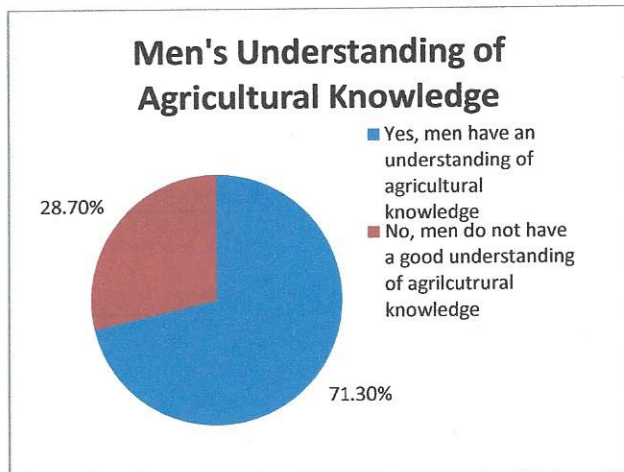


Figure 2 Men's understanding of agricultural knowledge

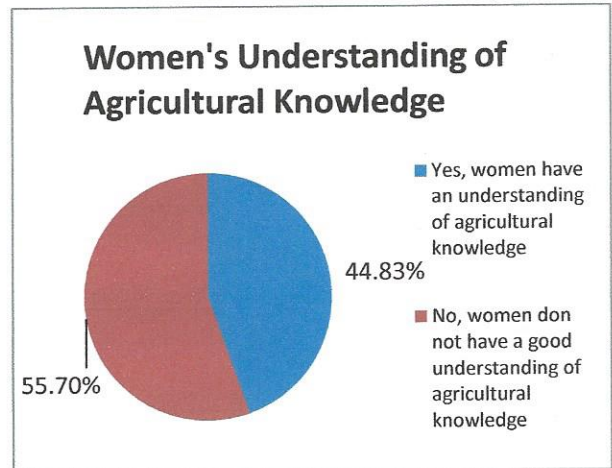


Figure 3 Women's understanding of agricultural knowledge

While the reason behind why women were more likely to have less education is not clear based on these questions, it can be inferred that the social norms of the district play a role in this continual education gap between genders, which clearly plays inhibits a woman's ability to be a successful farmer.

3.2 Social Constraints

To determine how to best benefit women in Mewat, it was essential to understand their social standing in within their communities and what other social constraints affect women farmers. During the interview, I asked women what things in their lives they felt like kept them from being successful farmers. Responses were categorized into four answers.

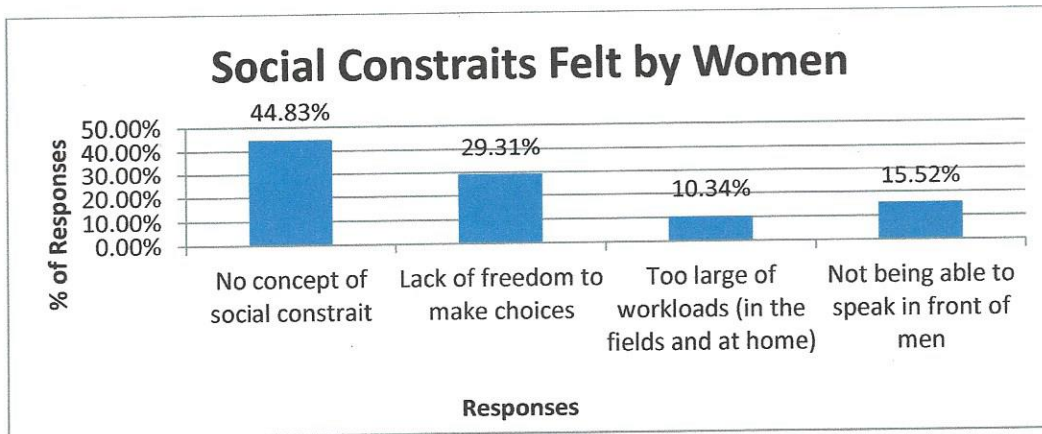


Figure 4 Social constraints expressed by women that inhibit their farming abilities

The most common response was that the women had no concept of social constraint in their lives, simply stating this “This is just how things are”. From there, women pointed to lack of ability to make choices, having too large of workloads both in the fields and in the home not being able to speak in front of men. These responses help us to understand some of the reasons women may not be successful in agriculture because of limitations placed on them socially.

To further understand their social standing in their communities, we asked the women if they considered themselves to be farmers, and then compared these responses to whether or not the men considered their female counterparts to be farmers.

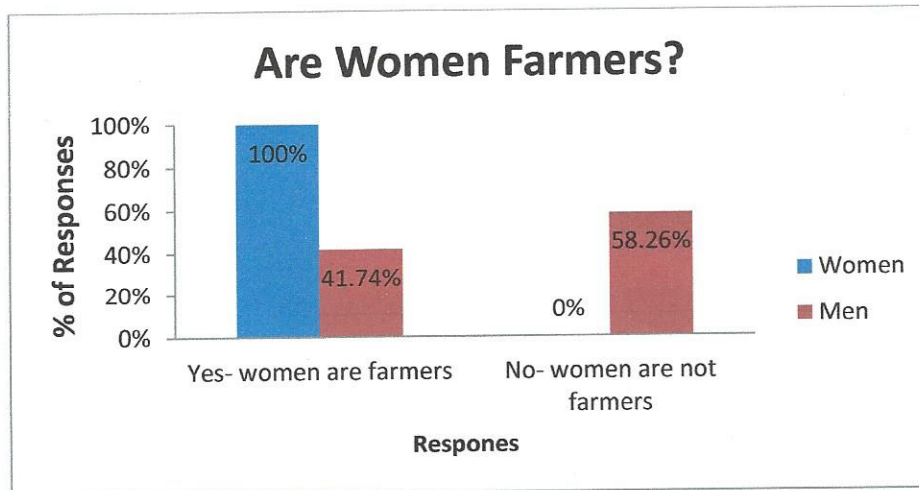


Figure 5 Opinions on whether or not women are farmers in Mewat

Naturally, all of the women considered themselves to be farmers; however, nearly 60% of the men did not consider the women to be farmers. Most commonly, the men supported their assertion by saying, “Women are housewives. They work in the home”. This opinion held by such a large percentage of men says a lot about the social standing women have in the villages, and could also explain why less women are educated than men. Why educate a woman who will “only work in the home”, despite her also working in the fields? The adverse effect of this

widely held opinion, though, is that women lose status among the community, which leads to the social constraints that inhibit their ability to be successful farmers.

3.3 Agricultural Responsibilities

The third objective of my research was to understand what responsibilities are held by whom in the villages. This aspect is critical to where the research would go after the interviews, as I early on discovered that task specific trainings would be a focus of whatever training module I pursued.

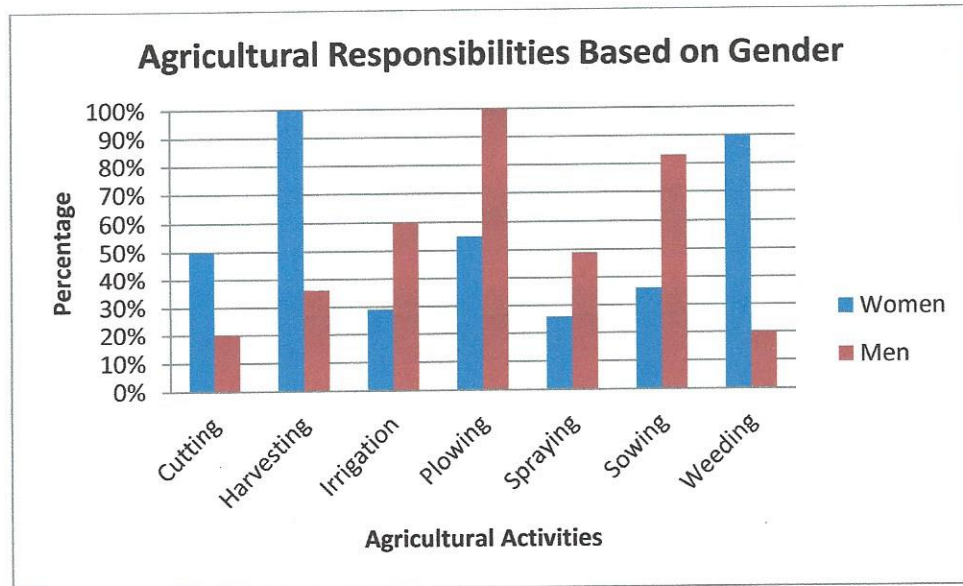


Figure 6 Participation in agricultural activities based on gender

By having a clearer understanding of which gender performs what activities, it is easier to categorize the needs of women in Mewat. Beyond work in the field, several interview questions brought into perspective what other work women do, whether it is working with livestock, traveling for work, or putting in extra time in the field.

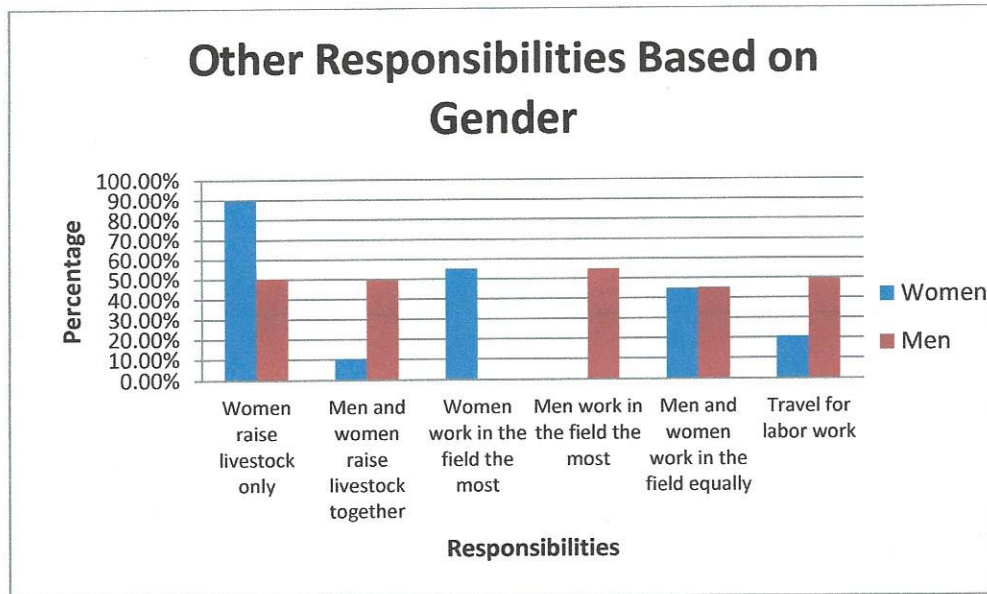


Figure 7 Responses regarding additional responsibilities based on gender

What is important to notice in Figure 7 is that women primarily work with the livestock while men often travel for labor work, which contradicts their statement that they work in the fields the most. Having a basis for what other responsibilities women have is necessary to develop a training module that benefits the work done by the women.

IV. Introducing Video Training Modules

In today's world of extension programs, forming Self-Help Groups and working through these are the norm when it comes to agricultural education and teaching new farming techniques in rural communities. However successful these Farmer Field Schools have been since the Green Revolution, there must be forward motion. Video training modules do not replace Farmer Field Schools, rather enhance the programs to best benefit the participants.

Using videos as a source of training is not a new concept in the area of agricultural development. Throughout Southeast Asia and African countries, many NGOs have developed video training modules that, successfully, cross barriers such as illiteracy, time constraints, and social norms to better educate the rural farmer on basic agricultural sciences and new techniques to improve their yields, in return improving their lives. Videos vary depending on the organization made and the target audience, but a training video is generally a short, 10 to 15 minute video that covers one topic such as integrated crop and pest management, proper fertilizer spraying rates, or a new seed storing technique.

4.1 Digital Green

Digital Green (DG) is a not-for-profit international organization headquartered in Delhi, India that works throughout Southeast Asia and Sub-Saharan Africa. DG partners with existing extension systems to integrate video training modules into agriculture, health and nutrition

initiatives. They “engage with and empower rural communities to produce participatory localized videos, leveraging pre-existing group structures to disseminate these videos through human mediation”⁷. DG works in similar communities and regions as SMSF, making it a viable example for how video training modules could be duplicated.

Digital Green stresses the necessity for digital videos to work in addition to traditional extension programs and the need for videos to be community made and specific. In a study done in 16 villages in India, DG increased the adoption of several agriculture practices “seven-fold”. The process was also found to be “10 times more effective per dollar spent than a classical extension system”⁸.

The process DG uses to make their videos will be closely referred to throughout the project. From DG, I have learned that videos are made featuring farmers similar to the population of where they are working, videos are made in the local dialect and they are immediately relatable to farmers.

4.2 STCP

STCP, otherwise known as Sustainable Tree Crop Program, is a collaborative organization founded by the International Institute of Tropical Agriculture, the United States Agency for International Development, and the World Cocoa Foundation. STCP works primarily in five countries: Cameroon, Cote d’Ivoire (Ivory Coast), Liberia, Guinea, and Nigeria with the purpose of promoting new innovative tree crop systems and improving labor and social systems of local farmers.

One way STCP works to train cocoa farmers is through a system called video viewing clubs (VVC). To test the success of VVC, STCP implemented a program in Cote d’Ivoire that involves weekly meetings of 20 farmers who watch instructional videos combined with occasional field demonstrations.

The study included 81 women farmers, 45 of which were video viewing members and 36 women were the non-participants as the control group. The women in the VVC learned strategies over integrated crop and pest management (ICPM). VVC training involves two steps which are conducted by a Participatory Extension Specialist (Pes): watching the films and discussing the contents and practice orientated field demonstrations.

Video training materials:

- Padex and markers
- A television
- VDC player
- Voltage stabilizer

The instructional videos were broken into 13 five minute videos that were produced by a third party source in French with portions in the local language. Sessions lasted two hours and included the screening of one or two videos at a time with mediated dialog between videos.

⁷ (Digital Green About Us)

⁸ (Gandhi, Veeraraghavan and Toyama)

Field demonstrations corresponding with the topics of the videos were conducted on a three week rotation on a volunteer's farm.

It is important to note that 70% of the women in the study were illiterate, 60% had never attended school, and of those who had, the majority dropped out at the primary level, making their education levels similar to those of the women in Mewat.

The study compared the performance of VVC trained farmers to the control group by conducting a survey of knowledge about integrated pest management, farm maintenance, the use of pesticides, replanting techniques, and harvesting and post harvesting techniques. The results of concluded that the VVC participants gained much more knowledge, scoring an average of 63.07%, than the control group who scored an average of 35.83%.

In regards to dissemination, 73% of VVC farmers shared knowledge of the trainings with an average of 1.52 other farmers and 22% of the women continued to meet independently to discuss the trainings.

Despite the success in improved knowledge of the VVC participants, there were no major improvements in yields between the two groups, which can be explained due to a lack of follow-up visits by the PES and a low number of field demonstrations. Women also criticized the use of French in videos, which they had to have translated into their local language by the PES. Women also disapproved of the use of private residence for screenings.

In conclusion, the videos overall improved the technical knowledge of the VVC participants, as can be determined by the test scores, but a lack of field demonstrations held some women back being successful in their own fields, and a low level of follow up visits by the PES contributed to the insignificant increase in yields.⁹

4.4 Access Agriculture

The third NGO evaluated, Access Agriculture, is different from the previous two in the sense that it is a web-based program rather than an extension program. Access Agriculture provides access for other NGOs to training videos in a variety of areas of agriculture. The difference between videos from Access Agriculture and DG or STCP is that the videos are not community specific.

In a comparison study in Benin, Access Agriculture partnered with other NGOs to determine how much more effective video trainings are than just traditional methods in teaching parboiling techniques. The study included 80 farmer-to-farmer videos and 160 women who had either attended the video trainings, traditional workshops, or a mixture of both. The results of the study concluded that 95% of the women who attended the video trainings adapted the new parboiling method, compared to only 50% of those who attended the traditional workshops. Additionally, 100% of women who viewed the video trainings shared the information they learned with others, while only 70% of the traditional workshop participants shared any information with others.¹⁰

⁹ (Florent, David and Couloud)

¹⁰ (Zossou, Espérance and Van Mele)

Dissemination is a key quality of video training modules that increase the value of this form of agricultural extension.

V. Creating Video Training Modules

So far I have outlined multiple different NGOs and how they specifically use video training modules in their programs. Through my research, I have pulled key aspects for designing one's own video training module.

5.1 Creating an outline

The outline constructs the basic formula for how the video will run. Many outline formats can be used for this process, but I have combined two for the purpose of effectiveness and comprehensiveness.

The first outline formula is called "The Snowman". This formula is very basic in structure and can be easily understood:

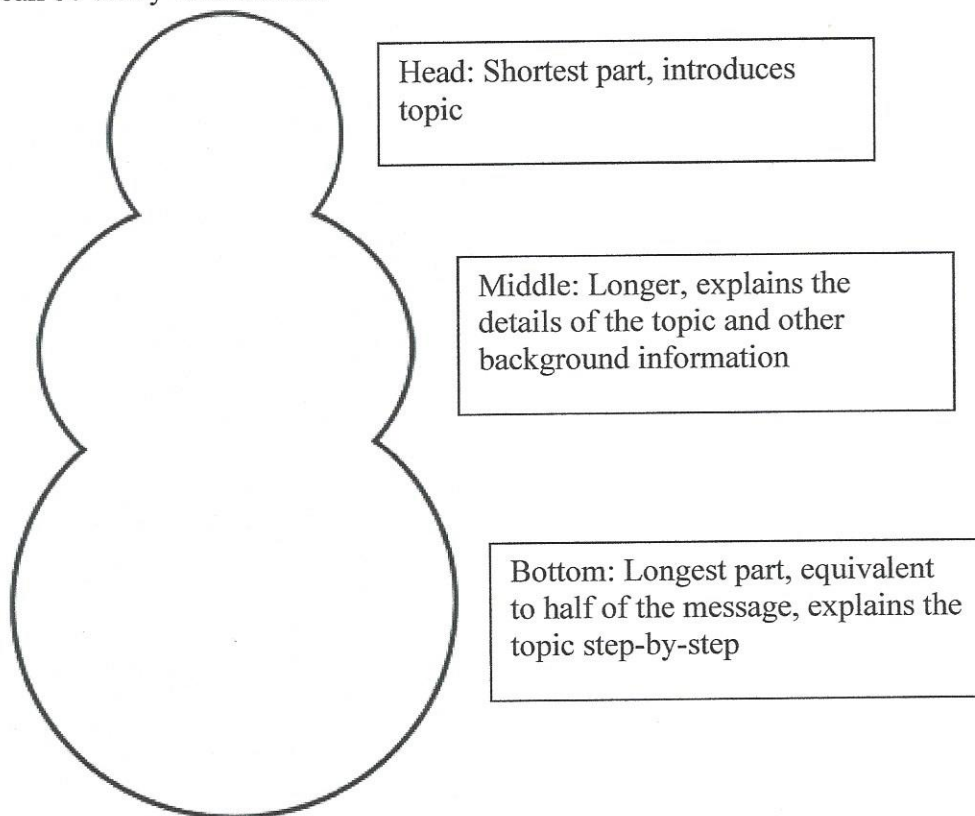


Figure 8 Snowman outline for videos

Within the snowman outline, there are five specific principles that must be included:

1. Identify the topic with a brief overview of the technique and its process.

This principle is found in the head of the outline. Here, the purpose of the video is specifically stated; however, details are not given yet. It made include a brief demonstration of the technique or topic without explanation.

2. List needed materials and associated costs.

Found in the middle of the outline, this principle also describes the necessity of materials and how they relate to the topic.

3. Step-by-step instructions in the field with a farmer and the mediator.

As seen in the snowman outline, step-by-step instructions are found in the bottom of the snowman, which is the section that contains the specific details of the topic. This principle can be carried out by a mediator explaining in simple instructions exactly how the technique is done.

4. Show a demonstration and its results and benefits.

Also found in the bottom of the snowman, the fourth principle is the final piece of the demonstration. It shows a local farmer uninterruptedly performing the technique explained in the video, showing all steps including the final product, which displays the benefit of the technique.

5. Question and answer with local farmers to address common questions.

The last piece of a video and the third principle found in the bottom of the snowman model is done in a question and answer format. Here, the farmer featured in the video asks common questions that others may also have and the mediator explains in detail the answers.

An outline containing these five principles is vital to the efficiency and success of the video.

5.2 Selecting actors

Those who are featured in a training video is one of the most important aspects of the process. When working specifically with women, it's essential that the actors are not only women, but that the farmer featured is also a woman. This allows participants to watch someone relatable to them succeed. In the mind of the participant, the technique taught in the video then becomes a plausible, adaptable technique she can use.

As for the mediator, participants would respond best to a mediator who is recognizable to them such as a field staff who has worked with them or others in the area. This eliminates the dilemma of participants feeling like they are being looked down on.

Lastly, as found by STCP, videos must be made in the local dialect of the area. Especially when the participants are illiterate or have little education, a video will be most successful if they are made in the local dialect of the audience compared to a national language they may not fully understand.

5.3 Materials

The biggest concern surrounding video training modules are the costs associated. However, I have determined that because there is high access to televisions throughout the district, video trainings could be a very cost effective strategy. Materials needed include a DVD/VDC player, Pico projectors (for when a television is not accessible), a video recorder and tripod and an external microphone. To show the affordability of these items, I searched Amazon.com and converted prices to rupees for the convenience of SMSF.

- I. DVD/VDC player (1,856 rs)
- II. Pico projector (2,264 rs)
- III. Video recorder and tripod (3, 199 rs)
- IV. External microphone (849 rs)

Both a DVD/VDC player and a Pico projector would not be necessary, but there are benefits to both. DVD/VDC players are less expensive; however they rely on electricity being available at the time. A Pico projector, return, does not rely on electricity and can display a video on a wall while the projector can still be carried in a pocket.

V.1 Conclusions and Recommendations

5.1 Conclusions

Based on the interviews conducted and research of other NGOs, I determined that video training modules are a successful approach when working with illiterate women. Videos provide a visual aid that bridges the gap found in traditional extension programs where literature is inapt. People are also more likely to believe things they see on television or in the media as opposed to something they purely read. Many of the women were found of watching the DD Kissan government channel on agriculture. They found this to be helpful in being able to see techniques performed and it allowed the techniques to seem more applicable in their own fields.

This leads to my second conclusion: video trainings must be need based. Men and women in Mewat very clearly have different responsibilities in the field. Women reported being more active in the field during harvest and almost solely manage the livestock. Men, on the other hand, work mainly during planting and do irrigation themselves.

I have determined that videos must be simple and task specific. Trainings would be most beneficial and efficient when participants are learning knowledge specific to the type of work they do. It would not make sense to train a woman how to properly irrigate if she helps with weeding and harvest. Vice versa, why spend weeks teaching a man new cutting techniques when, after planting, he leaves to work in another village.

Lastly, my research concluded that video trainings are plausible in Mewat because farmers have accessibility to televisions and are interested in learning from videos. Each interviewee had access to a television, which could have been a major concern moving forward.

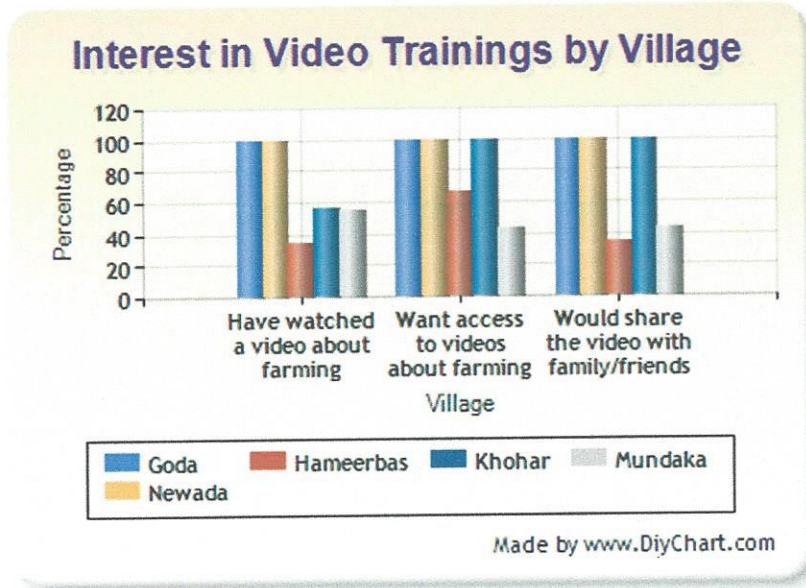


Figure 9 Responses regarding video trainings

5.2 Recommendations

After defining the conclusions of the project, I have developed several recommendations for SMSF if they continue growing this initiative. First, it is vital that a target goal for women participation in trainings across the board and in all branches of SMSF should be implemented. Not only will this improve education levels for women, but their participation will give send a message in villages that women are intelligent enough and important enough to be taught agriculture, legal literacy, or water quality, improving their overall status within the village.

Secondly, implementations must be village specific, not generalized for the whole district. Within the five villages, there were clear differences in levels of education, equality and interests. In Mundaka, for instance, it was very difficult to maintain the interview with the women as an elder continuously interrupted, where as in Khohar, the men made many comments in regard to the respect they had for their wives, daughters and sisters. Therefore, trainings will look different in different villages.

Following that recommendation, trainings must be held separately for men and women in order for there to be the best results not just because they partake in different agricultural activities, but because women often complained about being unable to speak in front of men, meaning that separate trainings for them would allow for women to be comfortable asking questions and giving their input. By having this ability, women would gain confidence in their own abilities.

VII. Personal Reflection

India is not an easy country to understand, and after my two months living there, I am not sure I grasp even half of the layers that make up this unique country. Within the first days of my internship, a fellow intern said to me, "India has its many realities." And that is the best way I can describe this vibrant country of many ethnicities, languages, religions and cultures. This

country of 1.2 billion people is home to some of the wealthiest people in the world, and the poorest. And when the realities of this country are peeled back, one finds layers of tradition and progress mixed together; bustling markets of vibrantly dressed women and spice filled air; carefully calculated, crazy driving on narrow roads; and my favorite, never ending welcoming smiles and kind hugs.

The women of Mewat defined India for me. They never failed to greet me with hugs, kisses and songs and tours of their homes. Their endless perseverance, hope for a better life, and fighting spirits for self-improvement left me awe-struck on a daily basis. They have very little to laugh about and very little to look forward to, but they have everything to gain and refuse to give up until they have created better lives for themselves and their families. While we could not speak each other's languages, we communicate through a common language; agriculture. This beautiful and universal language that I had only ever thought about in my small town, Iowa life, allowed me to be a part of a world I otherwise would never have discovered. And this is a world I refuse to ever leave.

As I traveled across India to Dharmsala and Amritser, I became aware that these qualities were not restricted to Mewat. Many, actually most, people have very little, yet they continue to give so much. I witnessed the sharing of food with complete strangers at Eid in Delhi, and saw homeless pass what little water they possessed to those around them. The nature of this country is incomparable and it gives me hope. Hope that I can be a better person and hope world hunger will cease to exist.

As I left to return to the United States with the spirit of an Indian, I left my heart in the villages of Goda, Mundaka, Khohar, Newad and Hameebras. Wherever college takes me, the women of Mewat will never be far from my conscious and my heart, and I cannot thank those 116 women enough for the addition they have added to my life.



Index

Woman Interview Questions

1. Name and age
2. How many years have you been engaged in agriculture?
3. What is your highest level of formal education?
4. How many hours a day do you work in the field?
5. Do you feel like you understand agricultural knowledge?
6. Is farming your main source of income?
 - a. If not, how else do you make money
7. Do you raise livestock?
 - a. What kind of livestock do you raise?
8. What challenges do you face in farming?
9. What new things would you like to learn about farming?
10. Does your husband ask your opinion about matters concerning the farm?
11. Do the village men also work in the field with you?
12. Do the men of the village accept you as farmers?
13. Because you are a woman, what things in your life keep you from being a successful farmer?
14. What access does your village have to a TV?
15. Have you ever watched a video to learn about new farming techniques?
 - a. If so, did you find it helpful?
16. Would you like to have access to a video that you could see demonstrations of new farming techniques?
17. If you had access to a video like this, would you like to see the video feature women farmers like yourself or professionals?

Interview Questions for the Men

1. Name and age
2. How long have you been involved in farming?
3. How much formal education do you have?
4. Is agriculture your main source of income?
 - a. If not, where else do you obtain income?
5. Do you raise livestock?
 - a. If so what type
6. Do you do most of the livestock rearing or does your wife/daughter?

7. What work do you do in the field?
8. What type of crops do you raise?
9. Do the women work in the field as much as you do?
10. Do you consider women farmers?
 - a. If why/why not?
11. What have you learned from this program with the Sehgal Foundation?
12. What new things about farming would you like to learn?
13. Does watching demonstrations help you learn new things about farming?
14. What access does your village have to a TV?
15. Have you ever watched a video to learn about new farming techniques?
 - a. If so, did you find it helpful?
16. Would you like to have access to a video that you could see demonstrations of new farming techniques?
17. If you had access to a video like this, would you like to see the video feature men farmers like yourself or professionals?

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