

KLE TECHNOLOGICAL UNIVERSITY

DESIGN THINKING FOR SOCIAL  
INNOVATION

MASTER PPT

*Team 1*

THEME: AGRICULTURE RELATED  
CHALLENGES IN RURAL INDIA

# TEAM

# MEMBERS

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# COMMUNITY VISIT 1

## **Social Challenge 1**

My teammates and I travelled to meet Mr. Rudrappa on December 4th. We talked to him for hours, and I petted his dogs and cattle. After talking to him and exploring his farm, where towering sugarcane was neatly planted, we eventually moved on to the interview. He told us that he wished the village could have more veterinarians. There are around 67,784 veterinarians working in the nation. The quantity is startlingly little. He asserts that government veterinarians on rural visits frequently tend to lie, making explanations such as "we are in a different village" or "there is some work going on,". However, due to the shortage of physicians, we are unable to determine the nature of the situation. But this has resulted nothing but cattle losses, and for farmers like Mr. Rudrappa, losing even one of their livestock is a major loss on both an emotional and financial level.

# 1. Who is been affected by this challenge identified?

Lack of veterinarians for cattle can affect many different people and organizations. For example, farmers and ranchers who rely on healthy cattle for their livelihood may face challenges if they do not have access to veterinary care for their animals. Consumers who rely on cattle for food, clothing, and other products may also be affected if the animals are not adequately cared for. Additionally, the economy as a whole can be impacted if the cattle industry suffers due to a lack of veterinary care.

# 2. Why do you think addressing this challenge is important?

Addressing the challenge of the lack of veterinary doctors in rural India is important for several reasons. First, it is crucial for ensuring the health and wellbeing of the animals in these areas. Many rural communities rely on their livestock for their livelihood and food security, so having access to veterinary care is essential for maintaining the health of these animals.

Second, addressing this challenge can also benefit the human population in these areas. Many diseases can be transmitted from animals to humans, so having adequate veterinary care can help prevent the spread of these diseases and protect the health of the human population.

Third, addressing the lack of veterinary doctors in rural India can also improve the overall economy of these areas. Healthy livestock can be more productive and provide a greater economic benefit to their owners, which can help boost the economy in these rural communities.

Overall, addressing the challenge of the lack of veterinary doctors in rural India is important for the health and wellbeing of both animals and humans, as well as for the economic development of these communities.

### 3.What will happen if this challenge is not addressed?

If the challenge of lack of veterinary doctors in rural India is not addressed, it could have several negative consequences. Some of these may include:

Poor health and welfare of animals: Rural areas often have a high population of animals, including livestock and pets. Without access to veterinary care, these animals may suffer from untreated injuries, illnesses, and infections. This could lead to higher mortality rates, reduced productivity, and reduced income for farmers and other animal owners.

Loss of livelihoods: The lack of veterinary care could also impact the livelihoods of people who rely on animal husbandry and other related activities. Farmers may lose their livestock, and animal owners may have to sell their pets at a lower price, leading to a loss of income.



#### 4. Approximately how many people are going to benefit from the solution?

It is difficult to estimate the exact number of people who will benefit if the issue of lack of veterinary doctors in rural India is addressed. This is because the issue affects both human and animal populations, and the number of people and animals affected varies widely across different regions of India. Additionally, addressing the issue would likely have indirect benefits for many people, such as improved food security and public health. However, it is likely that a significant portion of the rural population in India, which is estimated to be about 69% of the total population, will benefit from improved access to veterinary care.

#### 5. Approximately how many people are going to not benefit/ Detrimental from the solution?

It is difficult to determine the precise number of people who will not benefit from a solution to the shortage of veterinary doctors in rural India. The supply in the leather sector will be impacted by the cattle's low mortality rate and good health. The price of leather goods would increase relative to what buyers would have previously paid. The industry would suffer employment losses, and less leather would be available.

6. What is the estimated/approximate timeline needed to resolve the identified challenge?

It is difficult to estimate a specific timeline for resolving the challenge of lack of veterinary doctors in rural India as it depends on various factors such as the availability of resources, the level of commitment from the government and other stakeholders, and the effectiveness of the implemented solutions.

# **Geotagged photos related to the social challenge identified**



## Social Challenge 2

We sat down with Mr. Rudrappa to talk to him and discuss his problems. He told us how there are loans that needed to be paid and even buying basic amenities like an irrigation pipes could be difficult at times. The lack of initial capital is a challenge that's common amongst most farmers before the sowing season. It's sad how these people at times can't access government facilities and need to rely on sahkars' for investments. These sahkars' are often very cunning and charge high interest rates, clenching the farmers tighter in debt. The worst part is, their income is something so minimal they are rendered in poor condition and are trapped in viscous circle of debt, sarkar and sahkars'

## 1. Who is been affected by this challenge identified?

Many poor farmers are going to be affected by this challenge who faced a lot of problems due to lack of money. They don't have much money to invest on their farming.

## 2. Why do you think addressing this challenge is important?

Addressing the problems faced by poor farmers is important for several reasons: They often live in poverty and face challenges such as lack of access to education, healthcare, and financial services. They may also have limited access to resources such as land, water, and technology, which can prevent them from achieving economic stability and improving their quality of life.

### 3. What will happen if this challenge is not addressed?

If the problems faced by poor farmers are not addressed, they may continue to live in poverty and face challenges such as lack of access to education, healthcare, and financial services. This can prevent them from improving their quality of life and achieving economic stability.

### 4. Approximately how many people are going to benefit from the solution?

It is difficult to provide an exact number of poor farmers who would be affected by solving their problems, as this would depend on various factors such as the location, the specific problems faced by the farmers, and the scale and effectiveness of the solutions implemented. However, it is estimated that there are millions of poor farmers around the world who face various challenges and could benefit from solutions to their problems.

5. Approximately how many people are going to not benefit/ Detrimental from the solution?

In general, however, it is likely that not all poor farmers will benefit from efforts to solve their problems, as these efforts may not be able to reach all farmers or may not be applicable to all farmers' situations. It is important for governments and organizations to carefully assess the needs and challenges of poor farmers and implement targeted solutions that are tailored to the specific context and needs of these farmers.

6. What is the estimated/approximate timeline needed to resolve the identified challenge?

The amount of time needed to solve the problem of farmers would depend on various factors such as the location, the specific problems faced by the farmers, and the scale and effectiveness of the solutions implemented.

# **Geotagged photos related to the social challenge identified**

# Social Challenge 3

We went to Rudrappa Uncle's Farm. We were there for a long time and noticed a few laborers' loading sugarcane into the truck. We asked him why he doesn't have money to pay them, then how they are working in his farm? He said that the laborer's are not his labors. A lot of sugarcane companies give contract of growing sugarcane in acres. By the end they send their own laborers and truck to take the sugarcane. What happens is there is a lot of risk on farmers; they don't give them advance or any money at all and they have to spend their own money doing all the work—land, seeds and fertilizers all belong to them but if they don't grow well then all loss is for farmers company won't pay anything; if it grows well also company takes a lot of time to process funds. They have to go through lots of people and middlemen will eat their share so farmer ends up with nothing at all!



# 1. Who is been affected by this challenge identified?

Small-scale farmers are often negatively affected by factory exploitation because they are at a disadvantage when it comes to competing with large, factory-scale operations. Factory farms often have economies of scale that allow them to produce food more cheaply, which can make it difficult for small-scale farmers to sell their products at a competitive price. Additionally, factory farms can use their political and economic power to influence policies and regulations in ways that disadvantage small-scale farmers. For example, they may lobby for policies that make it difficult for small farmers to access land, credit, or other resources they need to operate their farms. This can make it difficult for small-scale farmers to earn a living and can drive many of them out of business.

## 2. Why do you think addressing this challenge is important?

Addressing the problem of exploitation of farmers by industries is important for a number of reasons. First and foremost, exploitation of farmers is unethical and unfair. Farmers work hard to produce the food that we eat, and they deserve to be treated fairly and with respect. Second, exploitation of farmers can have negative consequences for the broader economy. When farmers are unable to earn a fair price for their products, they may be forced to sell their land or go out of business, which can lead to a decline in the agricultural sector and associated industries. Finally, addressing the exploitation of farmers can help to promote sustainable and equitable food systems.

### 3. What will happen if this challenge is not addressed?

If the problem of exploitation of farmers by factories is not solved, it is likely that the negative consequences will continue and potentially worsen. Farmers who are exploited by factory farms may be unable to earn a fair price for their products, which can make it difficult for them to make a living and support their families. This can lead to a decline in the number of small-scale farmers, which can have negative consequences for rural communities and the broader economy. Additionally, exploitation of farmers can lead to the erosion of sustainable farming practices, as farmers may be forced to cut corners in order to compete with factory farms. This can have negative consequences for the environment and the long-term sustainability of our food systems. Overall, it is important to address the problem of exploitation of farmers in order to promote fairness, equity, and sustainability in our food systems.

#### 4. Approximately how many people are going to benefit from the solution?

It is difficult to say exactly how many people would benefit from a solution to the problem. However, addressing this problem will help to promote sustainable farming practices, it could have positive effects on the environment and public health. Additionally, helps to support small-scale farmers and promote fair and equitable food systems, it could help to strengthen rural communities and the broader economy. Overall, addressing the problem of exploitation of farmers is likely to have a range of benefits for different stakeholders.

## 5. Approximately how many people are going to not benefit/ Detrimental from the solution?

It is difficult to say exactly how many people would not benefit from a solution to the problem . However, it is likely that a solution to this problem would benefit the majority of stakeholders, including farmers, rural communities, and the public. In some cases, large factory farms may be negatively impacted if a solution to the problem of exploitation of farmers leads to increased competition or tighter regulations. However, it is important to keep in mind that addressing this problem is necessary in order to promote fairness, equity, and sustainability in our food systems.



## 6. What is the estimated/approximate timeline needed to resolve the identified challenge?

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It is difficult to provide an estimated timeline for resolving the challenge. Developing and implementing solutions to this problem is likely to require significant time and effort from multiple stakeholders, including farmers, policymakers, civil society organizations, and the broader public. In order to effectively address this challenge, it will be important to engage all of these stakeholders in a collaborative and inclusive process. This process may involve a range of activities, such as research, policy development, public education, and advocacy. Overall, it is likely to take a significant amount of time to develop and implement effective solutions to the challenge of exploitation of farmers by factories.



# **Geotagged photos related to the social challenge identified**

# Social Challenge 4

## LACK OF KNOWLEDGE OF GOVT SCHEMES

Agriculture is the backbone of our country. Agriculture and related fields, account for 20.2% of the country's GDP. Since farmers work day and night for their living and country's development, the government provides many schemes for the upliftment of farmers.

The major issue is, most of the people who are from farming background start working in fields from a very young age and hence are not able to get proper education or no education at all. Since many people from farming background are illiterate, they have no information about these government schemes. Those farmers who are educated enough to understand these schemes, do not bother to educate their fellow farmers so that they remain uneducated and these people can take the advantage and henceforth sometimes even these schemes may get exploited by these people.

## **1. Who is been affected by this challenge identified?**

Small scale farmers who lack education or have no education at all are affected by this social challenge and according to the farmer we contacted, the gram panchayat also has stopped calling for meetings nowadays as it once used to call for weekly meetings for all farmers and have a conversation. The schemes are only introduced to them, who willingly go to gram panchayats by themselves which is inevitable to the kind of farmer we visited, who is the only caretaker of his 24 acres of land and he can't go to gram panchayat regularly leaving behind the field work which requires punctuality otherwise the yearly harvest would be wasted.

## 2. Why do you think addressing this challenge is important?

This challenge should necessarily be addressed because if all the farmers are contributing equally to the field of agriculture, why should only properly educated ones take the advantage of the helping hand offered by government schemes? The farmer we contacted, spoke about those middlemen who have all the documents ready in hand and visit panchayat regularly and take advantage of schemes in front of their eyes without even helping the others to register their names in kisan welfare websites and gram panchyats do not offer any help without proper registration of the farmer's ID in the website, about which again, farmers are unaware.

### **3. What will happen if this challenge is not addressed?**

The small scale farmers remain suppressed in society and all the educated farmers will go on getting benefits from government and have advancement in their farming systems whereas these small scale farmers would end up using older techniques in their farming system without any economic support, which would require much human energy.

### **4. Approximately how many people are going to benefit from the solution?**

We can't approximate the value to some numbers but all the small scale farmers are definitely going to get benefitted from the solution.

## **5. Approximately how many people are going to not benefit/ Detrimental from the solution?**

All the middlemen who exploited the government schemes without even bothering to educate small scale farmers about these schemes, are definitely the ones who are not going to get any benefits.

## **6. What is the estimated/approximate timeline needed to resolve the identified challenge?**

We can educate all the children of farmers who are admitted to government schools by visiting them and providing them with a booklet which contains images of all the processes they need to follow. Since we can't visit every single school, we can inform CRPs of those schools and hence we can cover most of the schools nearly within a week.



# Other form of resources that were obtained

We visited a farmer named Mr. Rudrappa Badavannavar who owns 24 acres of land in Nagalaavi. We spoke to him about various issues he faces as a farmer, among them, these were things he spoke regarding government schemes.

Mr. Rudrappa says, "We are some farmers who want to work. We don't even have information regarding those government schemes. There are people who exploit government schemes who do not work. They click pictures in someone's field and show it to panchayat authorities and claim the advantages. The authorities also listen to those people and approve the schemes. When it comes to us, if we want to go there then, we have to leave all the field work and fold hands in front of them. An honest farmer would never run behind government schemes. There are various government schemes published regularly in newspapers but there are these hurdles if we want to claim them and the authorities too, do not bother about us at all"

# Social Challenge 5

I and my team further spoke to farmer Rudrappa. One of his problems that stuck with me is shortage of electric supply for irrigation of crops. Electricity is necessary for irrigation as it powers the motors. The irregularity in timing of electricity supply makes it difficult for farmers to water the field. Such uncertainty creates trouble for farmers. The problem of water continues to haunt them . But, even if the water is available, the electricity creates another barrier which is hard to overcome .

## 1. Who is been affected by this challenge identified?

In general, irregular supply of electricity in irrigation can affect anyone who relies on irrigation for agriculture, such as farmers and agricultural workers. It can also impact the communities that rely on the agricultural products , as well as businesses that rely on the agricultural industry

## 2. Why do you think addressing this challenge is important?

Access to electricity is important for many aspects of modern life, including irrigation. . Without access to electricity, farmers may not be able to effectively irrigate their fields, leading to reduced crop yields and potential losses. In addition, a lack of electricity can limit the ability of farmers to use modern technologies and techniques that can increase productivity and efficiency. Overall, addressing the lack of electricity for irrigation is important for supporting the agriculture sector and ensuring that farmers have the resources they need to be successful.

### 3. What will happen if this challenge is not addressed?

If the lack of electricity in irrigation is not addressed, it can have serious consequences for the agricultural industry, the economy, and the environment. Without access to electricity, farmers may not be able to use advanced irrigation systems, which can lead to reduced crop yields and lower quality crops. This can result in economic losses for farmers and can impact the overall economy of a region, as agriculture is often a major contributor to the local economy. Additionally, a lack of electricity in irrigation can lead to the use of less efficient and wasteful irrigation methods, which can have negative environmental impacts. Therefore, it is important to address the lack of electricity in irrigation in order to avoid these negative consequences.

### 4. Approximately how many people are going to benefit from the solution?

It would depend on the specific details of the solution, as well as the number of people who are currently affected by this issue. In general, however, providing access to electricity for irrigation can benefit farmers, and the agricultural industry. It can also have positive environmental impacts, such as reducing water waste.

## 5. Approximately how many people are going to not benefit/ Detrimental from the solution?

It is difficult to say how many people would not benefit from a solution to the lack of electricity in irrigation, as it would depend on the specific details of the solution and the number of people who are currently affected by this issue. In general, however, providing access to electricity for irrigation can benefit farmers, the agricultural industry, and the economy of a region. It is possible that some individuals or organizations may not directly benefit from the solution, but it is unlikely that it would have a negative impact on a significant number of people.



## 6. What is the estimated/approximate timeline needed to resolve the identified challenge?

Reflecting on farmers problem “ Electricity for agriculture is an issue”. The condition of electricity is poor in agricultural region .Farmers like Rudrappa, have invested their money on electrical pump sets and other equipment. If they do not get electricity their investment will be wasted.

Renewable energy can be key solution to solve and curb problem like this. Solar power park can create renewable energy that ease the problem . But, supplying electricity is the major problem .whenever there is problem transformer or cables , it takes around 10 days to get repairing done irrespective of complaints. To overcome this ,centralised power bank should be adopted as per requirements ,this can help to store energy and then to be processed .

another important thing that traditional farmers should shift from flood irrigation method to drip irrigation , which consumes less electricity to pump water compared to older one.



# The finalized social challenge

The finalized social challenge is the lack of awareness of government schemes.

This challenge should necessarily be addressed because if all the farmers are contributing equally to the field of agriculture, why should only properly educated ones take the advantage of the helping hand offered by government schemes? The farmer we contacted, spoke about those middlemen who have all the documents ready in hand and visit panchayat regularly and take advantage of schemes in front of their eyes without even helping the others to register their names in kisan welfare websites and gram panchyats do not offer any help without proper registration of the farmer's ID in the website, about which again, farmers are unaware.