Socio-Economic Condition of Village Bakrianwali : A Survey

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of BS-MS dual degree in Science

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Certificate of Examination

This is to certify that the dissertation titled "**Socio-Economic Condition of Village Bakrianwali : A Survey**" submitted by **Mr. Mukesh Kumar (Reg. No. MS12071)** for the partial fulfilment of BS-MS dual degree programme of the Institute, has been examined by the thesis committee duly appointed by the Institute. The committee finds the work done by the candidate satisfactory and recommends that the report be accepted.

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(Supervisor)

Declaration

The work presented in this dissertation has been carried out by me with Dr. Ritajyoti Bandyopadhyay at Indian Institute of Science Education and Research, Mohali. This work has not been submitted in part or in full for a degree, a diploma, or a fellowship to any other university or institute. Whenever contributions of others are involved, every effort is made to indicate this clearly, with due acknowledgement of collaborative research and discussions. This thesis is a bonafide record of original work done by me and all sources listed within have been detailed in the bibliography.

Mukesh Kumar
(Candidate)
Dated: April 13, 2018

In my capacity as the supervisor of the candidate's project work, I certify that the above statements by the candidate are true to the best of my knowledge.

Dr.Ritajyoti Bandyopadhyay
(Supervisor)

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0.1 Abstract

In this dissertation, I have examined three main aspects of the aspirations of the population in a village named Bakrianwali in Sirsa district of Haryana, India: agriculture, government schemes for farmers and education. I start by examining whether agriculture is still a sustainable profession according to the current minimum support price of agricultural commodities. To examine this, I calculate the profit from major seasonal crops in the said village. Through an ethnographic fieldwork, I further give an account of the social and economic conditions of the village Bakrianwali. I then study the socio-economic dimensions of the existing credit system of the village. Employment data collected is used to understand and create a socio-economic profile for the village. It was found that most small farmers (owning land less than 3 to 4 acres) tend to diversify income beyond agriculture and agricultural labour market. I study their migration to other professions and try to map the emergent patterns in various forms of labour migration. What role do the government schemes play to make agriculture sustainable? Are these schemes really helping farmers? The thesis then moves on to study the impact of various government policies regarding agriculture and farmer welfare in the population under survey. If the condition of farmers is not good then what is the situation of education as an alternative? It is also observed that literacy rate in the village is lower than the state literacy rate and I find a correlation between social and educational status. Although the research is based on a single village, an attempt is made to understand the transitions in rural/village life in contemporary India (what happens to village life when the umbilical relation between agriculture and rurality is cut?). This is done by framing a conversation between micro and macro level qualitative and quotative data.

Dedicated to the process of unlearning.

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Chapter 1

Prelude

1.1 Introduction

With more than 50% of its core population engaged in primary agriculture in the rural sector, India is a developing country considering the current global economic and political scenario. Being one of the largest democracies in the world and also the second most populated country, it suffers from issues like poverty, unemployment and largely prevalent corruption in the government. Such circumstances, along with the economic and political climate of the country, has shifted the focus from agriculture to gross industrialization as the primary source of income. With the increasing supply of cheap labor, ceasing opportunities in the rural sector, and an ever expanding urban landscape, the majority of the population has gradually started to fall within the grasp of industrialization. This certainly reflects the situation of the diminishing agricultural sector and the complete thrust towards industrialization, though some may argue that the industrial sector is largely dependent on the former for its existence. Most political economists argue that there is a wage and revenue imbalance between agriculture and industry (k balagopal). This aspect of economic development in both the sectors, especially the rural or the agriculture sector needs to be properly analyzed, given the unorganized nature of its system of functioning. This thesis makes an attempt to accomplish me look through an in-depth ethnographic fieldwork in a particular village in Haryana.

1.2 Village Study & Its Necessity

With more than 68% of Indian population residing in villages, makes it the most important part of Indian society. Many writers, poets, socialists, freedom fighters attribute values like true India resides in villages, villages represent a veritable native life , if villages flourish India will flourish too.Villages are also criticised as caste ghettoos.The socio-economic situation of a village and the people residing in it are always a resultant of several customs, traditions and several other factors like race, caste which have been going for several centuries being passed on from one generation to another. But with time, Indian villages are changing both internally and externally as villages are always in interaction with cities. Since, village people are in constant touch with modern technologies like mobile phones and televisions, villages are changing at an unprecedented rate both economically and culturally. As a result of this ever growing interaction between people residing in villages and people residing in cities, a social relation and belief system in villages are in constant metamorphosis. The study of peasants shows that their life does not only get affected by the economic factor, but their social part and cultural part too plays a vital role in their life. Therefore, a close study of the peasants, who comprise majority of the population in villages revels many factors like credit system, social relations affecting credit system, education system, caste system and impact of government policies on a peasant's life. Due to electoral democracy various development programs are being initiated by the state government to develop the villages with the intension of changing voting behavior in their favor, which can be seen as a positive outcome of electoral democracy. Secondly, government cannot ignore larger section of people as 68% of population resides in villages, making it necessary for the government to transform their immobile and backward economy. There are many government schemes for agriculture sector, backward class, labors and girls education. So, the state governments are not anymore external identity for peasant's society. Therefore, it is necessary to do field survey and examine the ground reality of the development programs to ensure peasant's capabilities to grasp elite's idea. Are government policies for real development for them or only a tool to reverse the effect of primitive accumulation ?[1] The fieldwork done by social anthropologists help policy makers to include all social forces to make a policy for improving the social and economic condition of people living in villages. Sometimes social anthropologists who at institute level

do field work are also a part of many meetings with government officials to make plans. [2]

1.2.1 History of Village Study

Robert Redeld was the first social anthropologist who did systematic village study in a Mexican village called, Tepoztlan and provided a model for village study, which was later followed by anthropologists in different parts of the world [3]. In India, British administrators carried out village studies in their respective areas, as part of their duties. The first anthropologist who carried out village study in India was the Sir Henry Maine in the year 1861. He published his book " Ancient Law (London)", mainly on the land system in India. After ten years of his first book he published "Village Communities in the East and West (London 1871)" illustrated the complete studies on the Indian villages [3]. After that, Baden Powell published in "The Indian Village Community" in 1896 criticism on Sir Henry Maine ideas described the land system in India. Lal Bihari Dey, was the first Indian anthropologist who carried out village study in Kanhanpera, West Bengal. By 1950, many Indian anthropologists initiated field work and started writing articles in "The Economic and Political Weekly" journal, during October 1951 to May 1954 [4]. There were a large number of village studies between 1960 and 1970 and which continued after that. Social anthropologists were the first, who carried out village studies. Later on political scientists, Historians, Economist were also attracted towards it (Beteille, 1996, p. 235) [4]. Anthropologist's studies mainly focus on caste system, kinship, hierarchies, gender in village communities.

Chapter 2

Village Bakrianwali : Socio-Economic Statistics

2.1 Introduction

Bakrianwali is a small village situated twelve kilometers from Sirsa, a district in the western most region of Haryana bordering Rajasthan on west and Punjab on north. This region is supposed to be in the basin of the ancient river Saraswati. Evidence of pre-harappan culture have been found at a nearby archeological site in Siswal. Since it lies at the intersection of three states, it is culturally diverse and rich, inhibited by Jat, Sikh and other minority cummunities. Hindi, Punjabi and Bagri are commonly known languages. The region lies amidst the fertile northen planes and is known to be inhibited since pre-historical times. Though, there is no flowing water source, majority of population depends on agriculture for their livelihood.

2.2 Methodology Followed During The Collection of Data In The Survey

Though collection of data was the hardest part of my work but it really gave some insight into the socio-economical condition of the people living in this village. I have used the most objective ways to collect the data to the best of my capacity.

The most challenging part of this survey was to make people speak as they did not want to share some of their information, like about debt and their dependency in the mechanism of economic exchange. I prepared a set of ten questions for different aspects of the survey and asked them to answer. Some of them were quite open in answering these questions while majority of them were reluctant in doing the same. After collection of data, I tried to analyze it through different mathematical tools like Histogram, Graphs, maps and tables and also compared it with some empirical data available in government offices and calculated the deviation.

2.3 Resources and Employment

Village Bakrianwali is home to 4156 people according to National Census of 2011. Among these 4156 inhabitants, 2151 are males and 2005 are females. Bakrianwali consists of 714 houses. The demography of the population in this village is very heterogeneous, with substantial variation in caste, consisting 903 people belonging to Scheduled Caste [5].

2.3.1 Natural Resources and Climatic condition

Village Bakrianwali's geographical terrain include sandy planes. Soil here is alluvial and has been used extensively for agriculture since past green revolution. All of village's land resources is either inhibited or agricultural land with no significant forest cover. Ground water here is saline and is used extensively for agricultural purposes. No river flows through the village's neighborhood. According to rainfall statics [6], the annual rainfall in Sirsa is 124.5 millimeters, which makes it the lowest rainfall receiving district in the entire state of Haryana. Ambala recives the highest rainfall ($1043.5mm$), followed by Panchkula ($935.3mm$) and Yamuna Nagar ($870.9mm$). If we look at the average rainfall in the district Sirsa, taken over the period of five years, which is $174.5mm$, is also the lowest in the entire state of Haryana making it evident that district Sirsa is suffering from the shortage of water. To overcome this shortage of water resource, two canals have been constructed namely Hissar Gaggar multipurpose drain and Sheranwali distuributory, which are main sources of water for irrigation other than tube-wells. There are 200 tubewells in Bakrianwali and $65,012$ in entire Sirsa district [7] placing Sirsa

at number 4 out of 21 districts of Haryana.

2.3.2 Industrialization in District Sirsa

India's villages are always in touch with cities, via economic and cultural exchanges, and thus are dynamic entities, never isolated. So it is necessary to analyze the development pattern of nearby cities in order to understand a village. A well planned industrialized city can provide employment to migrating labour from the nearby villages, a good environment for educating their children and feed their development. So to understand the socio-economic condition it is necessary to understand a city's contribution in the village economy and culture. On the basis of area, Sirsa is the second largest district of Haryana, but in terms of industrialization, Sirsa comes at number 13. In Sirsa, the number of registered factories, under Section 85 are 171 as shown in the graph below [8]. While Gurugram and Faridabad have developed owing to the active intervention of the state, the rest of the districts have been more self reliant for their development.

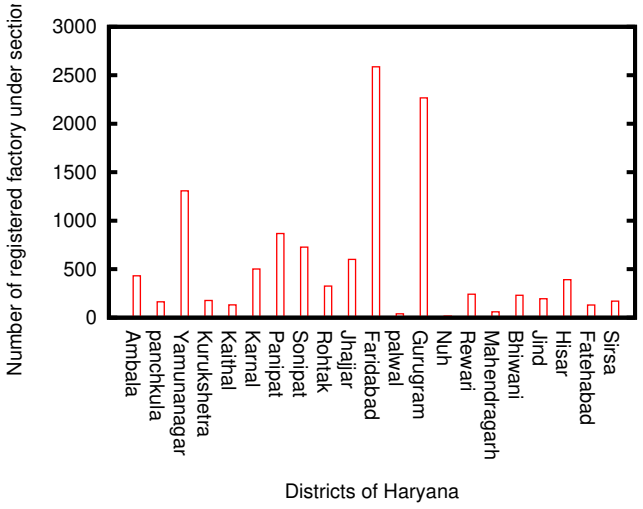

FIGURE 2.1: Number of registered factories Under Section 85 are 171 in district Sirsa. Source: - Stastical Abstract of Haryana, 2015-16.

2.3.3 Employment statistics

Worker

"In the case of seasonal work like cultivation, livestock, dairying, household industries, etc., if a person had some regular work of more than one hour a day throughout the greater part of the working season, he was to be regarded as a worker. In the case of regular employment in any trade, profession, service, business or commerce the basis for work would be satisfied if the person was employed during any of the fifteen days preceding the day on which he was enumerated. A person who was working but was absent from his work during the fifteen days preceding the day of enumeration due to illness or other cause was a worker. A person who was offered work but had not actually joined was treated as a non-worker. A person under training as apprentice with or without stipend or wages was regarded as a worker. An adult woman engaged in household duties but not doing any productive work, to augment the family resources was considered as non-worker. Persons like beggars, pensioners, etc., who received income without doing any work were regarded as non-workers. A public or social service worker who was actively engaged in public service activity or a political worker who was actively engaged in furthering the political activity of his part was regard as a 'worker.'" [9]

Though people are engaged in various kinds of works to earn their livelihood, a large number of them depend on agriculture [10]. Their participation in different occupations is shown below in table.

TABLE 2.1: Number of workers of both sexes of different occupations in village Bakrianwali. [Source:Census,2011]

Type of Occupation	Total Workers	Males	Female
number of workers	1824	1125	699
main workers	1242	1003	239
main casual labour	667	552	115
main agriculture labour	314	271	43
main household workers	6	6	0
main other type	255	174	81

Here, main workers are those who own agricultural land and use it as a source of their income, while main agricultural laborers are those, who do not own any land instead they work on somebody's farm that does not belong them. Looking at the above table, we can conclude that the main source of income for 85% of

the population of Bakrianwali comes from agricultural land whereas only 15% of the population of this village works in other sectors to earn their livelihood. Also, there is a huge gap between the number of male workers and female workers. Males are profoundly dominating the working space of each sector of economy within the village Bakrianwali.

Male participation in the village economy by type of their occupation has been surveyed. The Main worker (female) are mostly from the lower economic classes. A family belonging to a higher economic class and the younger generation do not subscribe to the idea of females working in the farm. Secondly, the advent of new techniques decreases the participation of females in the village economy. There are very few females with a decent education and there are no small scale industries in this village. So the females of this village are mostly household wives. I conducted an extensive survey on the employment spectrum of the village Bakrianwali and collected data from 1165 males which is summarized in Table 2.2.

TABLE 2.2: Percentage of workers employed in different categories in village Bakrianwali. Source : Survey by Author

Type of Occupation	**No. of persons (in %age)**
Main Worker	57.34%
Self-employed Trader	10.73%
Agriculture as well as Self-employed Trader	1%
Agriculture Labor cum Labor	11.07%
Government job	6.87%
Private Jobs	3.78%
Labor	9.27%

Sample size: 1165 : *Note : In the above table, workers have not been categorised according to table 2.1 because in villages, individuals are engaged in more than one profession for their income. So it is very difficult to categorize an individual's primary profession according to the government census data.*

TABLE 2.3: Description of various classes of workers listed in Table 2.3.

Type	**Description**
Main Worker	they own agricultural land and use it as a source of their income.
Self-employed Trader	a person who only sell commodity bought from market.
Labor	these are both casual labors (hired to perform specific task from time to time) and part time labors (employment consists of a series of short-term jobs).
Agriculture Labor cum Labor	Who are agricultural labour as well as labour.

Migration of workers at other places profile

V.T.V = Village to village migration.

V.T.C = Village to city migration.

TABLE 2.4: Migration of workers at other places profile. Source: Survey by author

.	Self-employd Trader	Labour	Government Job	Private Job
V.T.V	12	2	15	5
V.T.C	21	17	44	27
V.T.V+V.T.C	2	0	0	0

12.5% population work at other places in which 3% are population operate their buisness in rural area and remaning 9.5% in city.

Conclusion

- The percentage of migrant workers in this village is below the national average of 19%, [11] which means on an average 19% of Indian labour is "village to city" migrant labour. In the case of this village it is 12.5%. Which shows that the agricultural structure and income are still better than most other parts of the country but they are in decline.The two main industrially developed areas in this region were created by immense government investment in faridabad and gurgaon and they have taken over fifty years to grow to feasible size and employment generation rate so obviously industrial employment is not part of the organic or historic structure of the regional economy.

- In all types of occupation the number of V to V migrants is significantly less than V to C workers which points to the weakening of the entire structure

of agricultural economy in the region rather than just a temporary or local lack of employment in one village. This is because people are not finding adequate employment in near by villages. Also, the only significant V to V migrants are either traders or government job-holders, which means labor jobs in agriculture are decreasing in the entire region of contact. This is different in West Bengal and Bihar where the village to Village migration is fairly high and there is a balance between industrial and agricultural income [12].

2.4 Crops

Though people of village Bakrianwali cultivate many crops around the year, wheat, cotton, mustard, gawar and bajara are major crops while other crops such as gram, seasonal vegetables and fodders etc are also grown. This village is self sufficient in the area of agriculture, which is the largest source of income for the villagers. Maximum, minimum and average output for major crops in Bakarianwali is shown in Table 2.4.

TABLE 2.5: Maximum, minimum and average production (in quintal per acre) for various crops in village Bakrianwali. Source : Survey by Author.

Crop Type	**Production (in quintal per acre)**		
	Maximum	**Minimum**	**Average**
Wheat	24	18	21
Cotton	12	8	10
Bajra	16	12	14
Mustard	8	6	7
Gawar	6	4	5

Note: If a farmer have 4-5 acre of farmed area than output is not same per area. Here,average of crop taken according to production changing area wise. Average is not taken year wise. This average is an upper limit of production when condition for farming is very good. In districtwise production of wheat and cotton per acre sirsa area is at number 2. While Bajra and Gawar are not good alternative of cotton. Similarly Mustard is not good alternative of Wheat. In production of mustrad district sirsa is at 3. But the production and prices are not so much that mustrad gave profit like cotton and wheat.Gawar and bajra are sowen for changing

crop type to fertilise land.

2.4.1 Condition Of Pesticides and Techniques

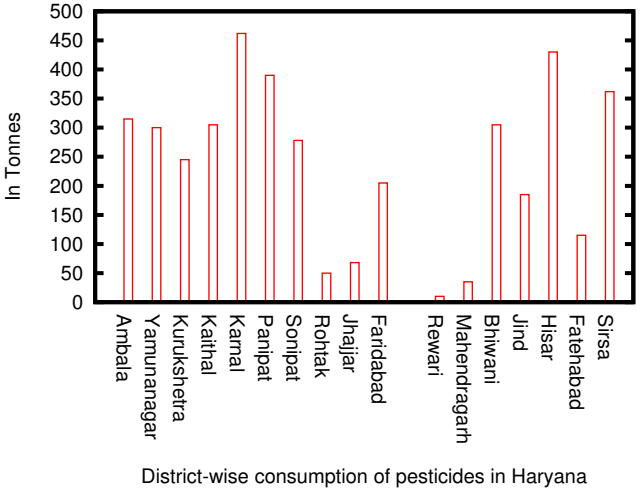

FIGURE 2.2: Amount of pesticides used per kg per hectare in each district of Haryana.

quality of the soil is alluvium in nature, so high amount of fertilizer and pesticides are needed to get high yield.People of Bakrianwali use many types of pesticides to maximize crop yield. Due to extensive use, soil's fertility is reducing because of which more fertilizers are needed. Extensive use of fertilizers and pesticides has make people of Bakrianwali prone to health problems. Sirsa is fourth largest consumer of pesticides in Haryana as we can see from Fig.2.2 [13]. In use of tractor Sirsa is at second position In all districts of Haryana .There are averagely 86 tractors per village in distric sirsa [14], but Bakrianwali has around 250 (source:survey.)

2.5 Microfinance institutions and Moneylenders

Micro-finance institutions and moneylenders play vital role in village economy. They provide people money for trading, agriculture and other household purposes etc.Both help in circulation of money in village. Though both sources mentioned

above serve same purpose, they differ greatly in their functioning and are called upon at different times.

2.5.1 Microfinance institutions

The main objective of micro-finance institution is to provide financial support to farmers at a very low interest rate. KCC(Kisaan Credit Card) is one of the most influential scheme, That help from large holding farmers to small landholding farmers by providing loan at less interest than moneylenders.

2.5.2 Moneylenders

Moneylenders play very important role in credit system of village. Moneylenders informally provide loan to farmers. They provide loan to farmers at high interest rate upto 24% per annum. There are two types of moneylenders.

- Big landlords.
- Mediators on whose shops farmers sell their commodity.

They provide three type of loan

1. **Assets based:** In assets based loans, moneylender gives loan and in return they keep assets like gold, land, houses etc.
2. **Relationship based:** In relationship based loans, moneylender has some relation with the borrower which becomes a basis on which they give loan.
3. **Bond based:** Bond based loans are for agricultural labors. Agricultural labors work in the farm of big landlords. Big landlords give them loan and If they not able to return back the loan then, the moneylender keep their share of commodity after crop harvest.

The poor people, who do not possess any land, take loan from big landlord type moneylenders in both asset based or relationship type loan. The farmers who

possesses medium size land (up to 6 acre) take loan from mediator type of moneylenders by both type asset based or relationship based.
During the survey on effect of demonetization on farmers in Nov-Dec 2016, I found a new kind of social relationship among moneylenders and farmers in society which is depicted in Fig 2.4.

Social Relationship before Demonetization

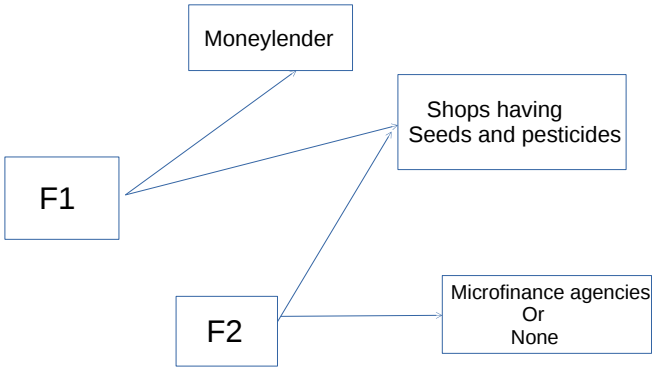

FIGURE 2.3: F1 is the farmer who in contact with moneylender and F2 is the farmer who is in contact with microfinance agencies or not with anyone.

Social Relationship After Demonetization

F1 type of farmers have relation with moneylender of exchange of commodity with money.At the time of demonetization circulation of money stop. At that time moneylenders relationship with pesticides,seeds,fertilizers owner shop help farmers to buy these commodity without money on relationship basis.F2 type of farmers who do not have relation with moneylender make relationship with F1 type of farmers.F2 type of farmers helped by F1 type of farmers and F1 type of farmers helped by moneylender.Or we can say that Cashless transaction happen but another way.We can also say that there is less impact on farmers of demonetization due to moneylender interfere.

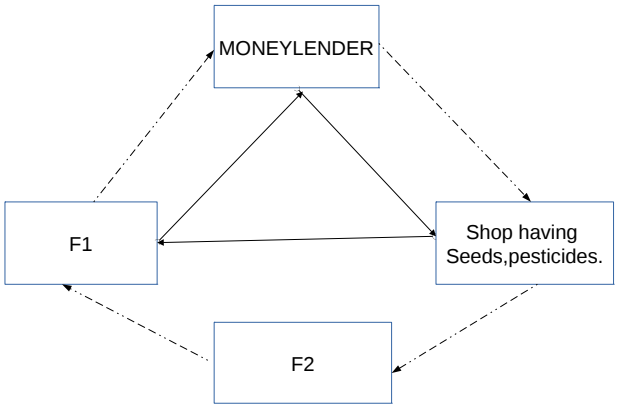

FIGURE 2.4: F1 is the farmer who in contact with moneylender and F2 is the farmer who is not in contact with moneylender.

2.6 Education

- Bakarianwali village has a lower literacy rate compared to the average literacy rate of Haryana. In 2011, the literacy rate of Bakarianwali village was 65.27% compared to 75.55% of Haryana. In Bakarianwali, male literacy stands at 76.42% while female literacy rate is 53.27% [10].

2.6.1 Education culture & Reservation

- A number of reports dealing with education have shown that the condition in govenment schools are statistically worse with respect to private schools. According to data collected from a government school, there are 43.4% students from SC categories, 15.1% students from general, 39.8% students from Backward-A Class and 2% students from Backward-B Class out of 251 stdents. Out of these students, 52.2% are girls[15]. In Rural India, drop out numbers for girls are very high and only bright girls opt for higher education[5]. After independence, Indian education system was focused on 3 different classes and reservation was provided to SCs, OBCs and girl students in education. But if such conditions remain then we will go back to the post-independence era where these classes would be at the starting point

of the race.

- Let's come to the educational achievement of the general students (Jat community). According to the report of National Commision for Backward Classes submitted in Supreme Court on the educational achievements of jat students, "more than 12% children belonging to jat community in the age group of 6-14 years never attended school, which is higher than many other backward castes. At the graduation level, Jat community has about 6.5% enrolment, which is less than average level of 8.3%. At the postgraduate level, enrolment of Jats is 1.71% against the average of 2.26% of the respondents. The available data, therefore, suggests that in Haryana Jats are land-owning community. Their share in class I and II government service is close to their population share but they lag behind in both school and higher education enrolment" [16].

- What is the reason behind jat community (Majority in the village in question) lag behind in education? According to my survey, jat students lag behind in education because they are culturally backward in education. The condition of private schools are also not up to the mark according to today's competition levels. Private schools in the village recruit teachers with lower salaries in order to maintain a decent profit margin and to make education affordable for families who are mostly dependent on agriculture. Upto secondary education, private schools have consistently produced good results because they maintain punctuality and discipline in their students, making them memorize the entire syllabus multiple times, while neglecting the development of problem solving, practical, organisational or social skills. They are not able to produce students who crack the national level competitive exams. There is a huge gap between the level of entrance exam papers of top tier institutes and the higher secondary board exam papers. Therefore these students join local universities or colleges. By time they obtain their degree, they lose a huge amount of money on their education, but are unable to find a job in the private sector with a reasonable salary, due to the massive supply of similar employable young candidates. Inherited land is being divided from generation to generation, and with rapid modernisation of industry, there are fewer jobs available. Educated individuals don't want to work in the fields even as a secondary option. But Jats have a sizeable population in

Haryana and nearly 87% of the Jats are engaged in agriculture. As a result there was a Jat agitation for reservation in jobs.

- There are more than 60 courses offered by CBSE and HBSE Board. But only 20-25 choices are available to students in both private and goverment schools. So the variety of knowledge and skills in the educated class generated in the village is quite narrow. Hence the opportunity to obtain different types of jobs decreases. Lack of variety in choices can also increase dropout rates, due to lack of interest in pursuing a career in the offered disciplines. The government should think about building infrastructure for e-learning schemes so that more choices are made available to students in government schools.

Conclusion

Both average backward and general classes are not benefitting from current situation in goverment and private schools. If one of the party is benefitted from education then the goverment can take a stand for or against reservation.

Chapter 3

Migration of Farmers

Farmers are migrating from village to city either permanately or mostly operate in city and come to their home in village by day end. As from employment table 1.2 only 57.34% population purely depend upon agriculture. Only 10.65% people are in private and government job. 20% percent people are self employed and labour outside from the agriculture domain and rest are agricultural labour, self employed and sometimes both, depending upon agricultural work availability during cultivation and harvesting. Agriculture employs total 70.4% population of village and gives work to 11.07% population who does not posseses land. 29.59% are still engaged in non-agriculture professions. This is not a small number. With the increasing number of people in non-agriculture sector, the population of cities increases. Many of the non-agriculture farmers shift to informal sector entrepreneurship in neighbouring city.

To find out whether farming is a sustainable profession or not and to find out why farmers are changing their profession, I calculated the profit from major seasonal crops in village Bakriawali under most suitable condition for farming, with average maximum output (Table 1.2) in rupees using given current marketprice. For calculating profit, I calculated the expenditure invested on farming fields and obtained data for productivity of major crops in Bakarianwali. Expenditure and profit calculation are shown in Appendix A for Wheat, Gawar, Bajra, Cotton and Rape-Mustard respectively. I found that profit per acre per month for different crops varies from Rs.3000 to Rs.3700 which means a farmer earns only Rs.3000-Rs.3700 per month per acre in most suitable condition for crops. Some of the factors that drive a farmer to migration are listed below.

3.0.1 Occupational diversification

- A farmer earns maximum 3000 to 3700 rupees per acre, if the conditions are very good for farming. Minimum earning can go to an extent that he can earn nothing from farming. If a person is engaged in farming on 1 to 5 acres of land, than he earns almost equal to a labourer. But labourers don't have risk.A large number of farmers are below 3 acre as shown in appendix table A.6.So, poor farmers think about an alternate source of income.

- The marginal farmers don't have a large amount of cash at every instantce, because they operate on credit. They pay for their services after about 6 months, which is when they have harvested and sold the crop. This credit system works between the small entreprenurs in village that include grocery supplier, private tution teachers, medical shops, etc. who themselves earn very less. Often, the village is socially so well knit that neither party can deny the requests strictly and continue to operate in the conventional trust based-delayed-cash system of monetary flow.

- These small farmers turned shopkeepers also do not see in benefit in their new adventure due to the delayed system of payments. They find it rather more on enticing to operate the same business in a place where they are not known to their prospective customers and can deny the request for credit due to lack of trust. Or for make balance between money and buisness he place shop somewhere in city so that frequency of unknown customer who pay at time increase.

- However, the intermediate time between the sowing of seeds to the selling of harvest cannot be fully traversed through without cash. Festivals, medical needs, previous loans to be repayed, educational expenses of children, payment for small jobs like tailoring, vehicle repairs, fuel costs, and dozens of more services exist that lie outside the ambit of the trust-and-credit circle. The farmers therefore need some amount of cash-in-hand year round for which they are dependent on moneylenders, unless they find a source of income to supplement the need for cash. Therefore, to overcome this situation of survival crisis, they push their children in alternate professions. Sometimes they even take loans bigger than existing loans to invest in their children's education with the hope that education will enable the children to repay the loans but that seldom translates to reality.

- Due to technology being employed in farming like tractors, harvestors etc., the average age of retirement of farmers has sharply increased and also the work can now be managed by a fewer people then before. This worsens the state of unemployment or adds to the numbers in disguised unemployment.
- As the current generations are getting educated, they tend to trust their mental and intellectual faculty over manual hard-work that is required in farming. Since childhood they also get experience based education of the struggle within and due to their parents' profesion of farming and attend to alternative opportunities instead. The popular maxim : *Mumbai is the city of dreams* or *Nobody sleeps hungry in Mumbai* testify the dominant thought that established or growing cities offer ample opportunities which cannot even be concieved of in the villages. It is cognizable that these days the youngsters start migrating towards cities in search of the jobs that fit their capabilities, early on in their life. Sometimes, this decision is taken without giving an attempt to improving the state of farming or challenging the established practices, norms and socio-economic structures that ail the profession.

3.1 Impact of Government Schemes on Credit System and Social System

There are many schemes in agriculture sectors for improvisation land quality, enhance productivity, increase irrigation system, various type of subsidies, providing loan at low interest rate and crop insurance. But I mainly talk about 3 schemes which impact significantly almost all farmers .

3.1.1 Kishan Credit Card Scheme

Kisan Credit Card (KCC) scheme provides loan to the farmers at low interest rate 7% for a period of upto 3 years.This remain 4% due to a reward of 3% who pay loan at time [17] .This reduces farmer's dependence on moneylenders who charge higher interest rates. This is a transformation from moneylenders to Micro-finance institutions. Main implications of this scheme are listed below:

- On the condition of anonymity certain officials confirmed that after 1991, landholdings of big farmers have increased and at the same time landholding of small farmers have decreased.

TABLE 3.1: Changing land amount with time of rich farmers. Source: Survey by author

Farmers	**1967-68**	**1992-93**	**2012-13**	**Loan(Rs.)**	**Date**
A	198 kanal	198 kanal	238 kanal	99000 99000 1500000 1000000	24-1-89. 5-1-90. 4-1-2010. 14-9-2016.
B	198 kanal	198 kanal	246 kanal	3000000	17-6-14.
C	57 kanal	57 kanal	102 kanal	98000	28-10-1998.
D	57 kanal	57 kanal	125 kanal	1000000	13-2-17.
E	107 kanal	277 kanal	303 kanal	1100000	15-6-2016.
F	387 kanal	387 kanal	387 kanal	7000000 1500000	13-5-2008. 19-3-2005.

8 kanal = 1 acre.

Big farmers utilize this government schemes more efficiently as compared to small farmers because the capacity of taking big loans and intelligent investing of the loaned amount weigh in favour of big land holding farmers. The amount of loan is also linked directly to the land holding by each farmer. Small landholding farmers do not have much area to invest which results in lesser profit, so they use it for cultivation of crops, marriages and at the time of bad circumstances. Big landlords take high loans and invest their money to buy more lands or to provide a loan to others at the high interest rate or invest in more profitable trades. This scheme is helpful but not efficient enough to change the condition of small landholding farmers. As far as offering an alternative against the moneylenders goes, the scheme is genuinely helpful. On the other hand, instead of suppressing the economic disparity, the policy itself has become a tool by the richer farmers to widen the cleavage between the rich and poor farmers.

- Small landholding farmers do not have enough money to buy technology and even if somehow they get access to that technology, they become cashless till the time new crops are harvested, which is usually a period of 6 months. They are essentially diminished in the circle of cashflow or become pawns in the hands of those who control their cash-ability by financing them.

- When a new technology is available in market for the purpose of farming, big landlords often buy it first because they have enough money. They employ new technology and reap early benefits. KCC enables these big landholders to have more and also helps them to invest more on new technologies which maximizes their profit.

This scheme is a boon for big landholding farmers but not equally so for small landholding farmers. Though it helps small landholding farmers it is insufficient in its present formulation to help the farmer change his economic brackett. As a result of cumulative effects of these government schemes the rich farmers are getting richer which is evident as the alternative professions of rich farmers or their families are of those kind that demand heavy investments such as construction material shops, Borewell contractors, etc. are owned by rich farmers sometimes private schools too.

Social effect of KCC

To avail the benefits of KCC more efficiently, the landholding farmers often divide their land among their children. This is again because the loan amount is restricted to per person per acre of ownership. As a result the net number of loans increases inside the family, which improves the financial condition of the whole family. But this has a social cost attached to it. Earlier the head of the family which owned the land did not divide the land among his children during his lifetime fearing that the property partition might lead to a divide within the family. Naturally the head of the family and legal owner of the land would get more love, respect and affection from his children till the time of his death. But due to this new social effect of KCC father divides his land among his children during his lifetime and children often leave their father alone realising and exercising their financial independence. If family size data could be collected, it is expected that the number of nucleus families within the villages would be increasing with the introduction of KCC.

3.1.2 Pradhan Mantri Fasal Bima Yojna

Pradhan Mantri Fasal Bima Yojana (PMFBY) is a government insurance scheme for providing financial support to farmers at the time of loss/damage of crop for stabilizing the income of farmers to ensure their continuance in farming, to encouraging farmers to adopt innovative and modern agricultural practices and ensuring

flow of credit to the agriculture sector.
Food crops (cereals, millets and pulses), oilseeds, annual commercial / horticultural crops are included under this scheme. Following kinds of losses are covered in PMFBY [18]

- "**Prevented sowing/Planting risk** : Insurance is provided for not planted area that is not suitable for farming due to rainfall deficiency or other seasonal variations".
- "**Standing Crop risks** : Insurance is provided to cover yield losses due to non- preventable risks such as drought, dry spells, flood, pests etc".
- "**Post-Harvest losses:** For crops that needs to be dried in the field after cutting, insurance coverage is provided for losses due to rainfall, cyclones or other natural calamities for only up to a maximum period of two weeks from harvesting".
- "**Localized Calamities:** For damages due to identified localized risks such as hailstorm, landslide, etc affecting isolated farms in the notified area."

Flaw in PMFBY scheme

- There is a lack of contact between insurance companies and farmers as a result of which the farmers do not receive any documents related to insurance policy or receipt(Center for Science and Environment).The premiums are deducted by banks against crop loans extended by them.
- A Large number of farmers are still outside PMFBY-net. It covers only those farmers, who are under institutional loans.
- Low awareness among farmers, makes it easy for insurance companies not to provide claim payments.
- Production of crop depends upon avaibility of water, techniques implemented, access to tubewell and fertilizers. The PMFBY officials take a single village as a unit to measure the average yield. They choose 4 random places to measure the average yield of a village unit. They provide insurance if the average yield of 4 places is less than 50% of the threshold year. As already mentioned above, crop production depends upon many factors. It would be

ideal if the officials choose the areas which are owned by economically weaker families, in order to gauge the actual need for insurance benefits.

- In the under survey village there is a difference in production of crop on two sides of the village 1). Due to a gradient in the fertility of the soil 2). Due to mismatch of the level of land and the canal. On the east side of the village, the canal and the land are on the same level, so water can flow smoothly and more water reaches the fields. On the west side, the level of canal w.r.t land is low. Hence, the water does not flow smoothly and less amount of water reaches the fields. Therefore, such types of special cases should be considered in the on-ground implementation of schemes like PMFBY while measuring the average output of a village so that the benefit of insurance is accrued by those who especially need it.

3.1.3 Subsidy on Electricity, Seeds, and Fertilisers

The Government(State and central) provides subsidies on seeds,pesticides and electricity to farmers to reduce the cost of cultivation, to increase the productivity of soil and production of food grains, judicious use of farm inputs. Seeds, fertilizer, Pesticide, Irrigation Water, Fungicides and to improve the financial status of the farmers. Subsidy on different items given below in table.[19] To calculate the impact of scheme on farmers I have already included the subsidized price of seeds, pesticides and fertilizer to calculate expenditure(in Appendix-A) of cultivating crop(s).

Table 3.2: Subsidy on seeds,pesticides and electricity.

Type of Stuff	**Subsidy**	**Scheme for Subsidy**
Certified seeds of HYVs Wheet	50% of the cost limited to Rs. 1000.	Bringing Green Revolution to Eastern India (BGERI).
Mustrad	Assistance upto 50% to cost upto 2500/qtl	National Mission on & Oilseed Oil palm (NMOOP).
Cotton	Rs. 20/kg on hybrid seeds of cotton	
Paddy and Bajra	Rs. 500/qtl	Macro Management of Agriculture Mode/Rashtriya Krishi Vikas Yojana(RKVY)
"Support for IPM, pesticides Fertigation, Tree Guard etc.	50% of the cost limited to Rs. 5000 per hectare.	Special program on Oil Palm Area Expansion."
"Distribution of plant protection, chemicals, bio-pesticides etc.	Rs. 500 per hectare or . 50% of the cost	National Food security Mission (NFSM & BRREI)"
Weedicides	Rs. 500 per hectare or 50% of the cost	makecell National Food Security Mission (NFSM).
Electricity	Farmer pay only paise 12 unit for tubewell for electricity consumption per in tube wells for irrigation.	

Source : Department of Agriculture Cooperation & Farmers Welfare.

Chapter 4

Conclusions and Future Possibilites

In government school, over three quarters of student population is composed of the backward class and most of them are economically backward. Village Bakrianwali is structurally divided by caste.In past there existed intertwining relations such as landlord and tenants, master and servants, creditor and debtor etc. Now as agriculture has become every household's profession, these relationships have weakened with time. According to Ambedkar, the same territory, language, or culture do not form a society. People in a society are always willing to change society according to their will, and therfore it is constructive communication between the different group of people which make a society[20]. The village is structurally divided by caste and same division can also be found in educational establishments. This has lead to reduced communication among different groups since their respective childhoods and thus it is still challenging in present condition to remove "consciousness of caste" from people's mind in the village.
If the education system is not improved at school level then it is very difficult to attain goal of government schemes such as "Skill India" and "Pradhanmantiri Kaushal vikash Yojna". Skill India centers have good infrastructue but do not have good quality of resource persons. So government has to know the ground reality of schools and work on them.

After the first green revolution, no clever scheme has been launched by the government that can bring out a significant change in the agricultural economy. Partha

Chatterjee discussed that government in India acts as an intermediary to reverse the effects of primitive accumulation of capital through policies and programmes [1]. Some of these government policies and schemes were discussed in the previous chapter. Yet, judging on the efficiency and merits, no major step has been taken post-Green revolution to enhance the productivity. As is shown in Appendix A (Table A.X), production of crops per acre in India is much lower than many other countries [21]. These countries invest more money in agricultural sector than India does because they understand at an institutional level that agricultural sector is not one to be easily neglected. Negation of agricultural sector was one of the few reasons behind the peasant movement in England at the time of industrialization. The agricultural sector in India is in a dire need of investment and not only the government that pretends to care for it but also the Private industries that reap direct and indirect benefits from the primary industry should have a role to play. The technical. Technological know-how, R&D inputs and other help from the tertiary industry too is equally important. If there is an enterprise which could take land on lease from the farmers and employ scientific ideas in cultivating those land, it could increase the yield and also at the same time impart scientific ideas to other farmers.

Secondly, the elites are annoyed at the farmers because of their inability to act on the suggestions put forward by the elites must realise that the suggestions are not always actionable by the farmers because of the various choices linked to the structural, economic and cultural factors that form their environment. Sometimes, the farmers are not even aware of the choices available to them due to reasons of unawareness, the jargon of elite, lack of trust for the elite and many more. The peasant's alleged stupidity, his inability to grasp and follow the instructions of a self-confident elite, is often a cloak for his skepticism towards new ideas and nostrums. A skepticism that stems from a deep faith in his tried and trusted ways of living. If a new variety of seed or mode of cultivation fails, the farmer is the one who pays the price, occasionally this may translate to starvation for his family. The officers or the elites don't have the same risk. They are playing the same game theoretically but the practical stakes are much higher on one side. There must be a centre in the village which demonstrates to the farmers that a new alternative approach to farming is certainly profitable. In this proposed experimental centre the pesticide companies, seed distributors and fertiliser companies should take an active part. Through this, they can advertise their seeds, pesticides and fertilizers

and gain the trust of farmers while educating and encouraging novelty in agriculture.

As we see in section 2.4 that in output of many crop per acre district sirsa is at number 2 or 3 w.r.t other district but rather than this farmer of this area are earning very less (Appendix table: A1 to A5). So, minimum support price of crop should be increase.

Small land-owning farmers cannot feed their families from agriculture on their small farm alone. Education, under these circumstances, is an important factor for a sustainable advance. So at least a fair chance in education must be given so that there is some availability of a secure alternative that villager's can think of, however naively. For one, there are no major industries in Sirsa, there is a shortage of jobs. Secondly, land gets divided from generation to generation, younger generations don't want to pursue the family occupation of farming because of low production and income. If the condition of education and agriculture sector remains as it is today, formation of peasant political wings are bound to take place in village. For the reasons cited above, the agriculture of Bakrianwali- or the soul of the village has an existence that is threatened by many pressures. Neglecting agriculture, in this case, and perhaps many others may in future amount to neglecting the very existence of a non-urban India. History, they say, is a bad motorcyclist for it seldom indicates when it's going to take a turn. Bakrianwali too stands at such crossroads and it is a moment to pause and question the attitude of the existing social, economic, governmental, and other institutional set-ups that steer the way to the future for an innocent village. Presently, there exists no political wing of peasants in village Bakarianwali. But with the situation of Haryana and the intense political activity therein, are we to wait for a stronger united voice of peasants before we really attend to them? Or are we to act? This is put forward as an open-ended question not as an intellectual debate motion but as a request. As for my motivation to request for the special case of Bakrianwali, well, charity begins at home.

Appendices

Appendix A

Expenditure and Profit

A.1 Wheat

Table A.1: Total expenditure on wheat crop in one season from planting to cutting snd selling. Source : Survey by Author

Type	**Expenditure I** Who don't posses tractors	**Expenditure II** Who posses tractors.
DAP	1000	1000
Zinc	300	300
potash	500	500
seeds	1000	1000
Tubewell water	2000	2000
pesticides	1500	1500
Harvesting	3000	2500
selling	1000	1000
Rutavator	1000	500
Cultivator	800	400
Area levelling	300	150
TOTAL	12400	11000

From Table 1.3 average output of wheat = 21 quintal

Price of wheat in market = Rs.1625

Productivity per acre (in Rupees) = Rs. 21×1625 = Rs. 34125

Profit for,

those who posseses tractor = Rs.34125 − 11000 = Rs. 23125

who do not posseses tractor = Rs.34125 − 12400 =Rs. 21725

A.2 Musturd

TABLE A.2: Total expenditure on musturd crop in one season from planting to cutting snd selling. Source : Survey by Author

Type	**Expenditure I** Who don't posses tractors	**Expenditure II** Who posses tractors.
DAP	1000	1000
Zinc	300	300
seeds	500	500
Tubewell water	2000	2000
pesticides	300	300
Harvesting	2000	1000
selling	1000	1000
Fungus pesticides	800	800
Cultivator	800	400
Area levelling	800	400
Sowing	400	200
post crop area ready	800	400
TOTAL	10700	8300

From table 1.3, average output of musturd = 7 quintal

Price of mustard in market = Rs.3700

Productivity per acre (in Rupees) = Rs. 7×3700 = Rs.25900

Profit for,

those who posseses tractor = Rs.25900 − 8300 = Rs.17600

those who do not posseses tractor = Rs.25900 − 10700 =Rs.15200

A.3 Cotton

Table A.3: Total expenditure on cotton crop in one season from planting to cutting snd selling. Source : Survey by Author

Type	**Expenditure I** Who don't posses tractors	**Expenditure II** Who posses tractors.
DAP	1000	1000
Super	300	300
Urea	600	600
potash	300	300
Post crop area ready	1600(Dry+wet)	800 (dry+wet)
seeds	2000	2000
Sowing	400	200
Tubewell water	2000	2000
Weed remover machine	1600	800
pesticides	5000	5000
Harvesting	3000	3000
selling	1000	1000
TOTAL	18800	17000

From Table 1.3, average output = 10 quintal

Price of cotton in market = Rs.5000

Productivity per acre (in rupees) = Rs.10 $\times$ 5000 =Rs.50,000

Profit for,

those who posseses tractor = Rs.$50,000 - 17,000$ = Rs.33,000

those who do not posseses tractor = Rs.$50,000 - 18,800$ =Rs.31,200

A.4 Gawar

TABLE A.4: Total expenditure on gawar crop in one season from planting to cutting snd selling.Source : Survey by Author

Type	**Expenditure I** Who don't posses tractors	**Expenditure II** Who posses tractors.
Post crop area ready	2200(Dry)	1100 (dry)
Cultivator	800	400
Leveling area	300	150
seeds	500	500
Sowing	400	200
pesticides	1500	1500
Weed pesticides	1500	1500
Harvesting	2000	1000
selling	1000	1000
TOTAL	10200	7350

From Table 1.3, average output = 5 quintal

Price of Gawar in market = Rs.3200

Productivity per acre (in rupees) = Rs.5 $\times$ 3200 = Rs.16,000

Profit for,

those who posseses tractor = Rs.16000 $-$ 7350 = Rs.8650

those who do not posseses tractor = Rs.$16,000 - 10,200$ =Rs.5800

A.5 Bajra

Table A.5: Total expenditure on Bajra crop in one season from planting to cutting snd selling.Source : Survey by Author

Type	**Expenditure I** Who don't posses tractors	**Expenditure II** Who posses tractors.
Post crop area ready	3300(Dry+wet)	1700 (dry+wet)
seeds	500	500
Sowing	400	200
pesticides	1000	1000
Harvesting	1000	1000
selling	1000	1000
TOTAL	7200	5400

So, from table 1.3 average output = 14 quintal

Price of Bajra in market = Rs1200

Total output (Rs) = $14 \times 1200 = 16800$

Profit for,

those who posseses tractor = $16800 - 5400$ = Rs11,400

those who do not posseses tractor= $16800 - 7200$ =Rs9600

Rabi crop output

Total output from *Rabi* crop (Wheat + Rape-mustard) per acre per month
Who don't posseses tractor = $\frac{15200+21725}{12}$ = Rs3077.
Who posseses tractor = $\frac{17600+23125}{12}$ = Rs 3393.

Kharif crop output

Total output from *Kharif* crop (Cotton + Gawar) per acre per month
Who don't posseses tractor = $\frac{5800+31200}{12}$ = Rs3083.
Who posseses tractor = $\frac{8650+33000}{12}$ = Rs 3393.
Total output from *Kharif* crop (Cotton + bajra) per acre per month
Who don't posseses tractor = $\frac{31200+9600}{12}$ = Rs3400.
Who posseses tractor = $\frac{11400+33000}{12}$ = Rs 3700.

Agriculture Census of STATE : HARYANA,DISTRICT : SIRSA and TEHSIL : SIRSA

TABLE A.6: NUMBER AND AREA OF HOLDING BY SIZE CLASS. Source: Agriculture census database.

Sl.No.	Size of Holding(in ha.)	Individual Holdings (in %)
1	Below 0.5	24.16
2	0.5-1.0	17.84
3	1.0-2.0	24.11
4	2.0-3.0	13.24
5	3.0-4.0	7.64
6	4.0-5.0	5.14
7	5.0-7.5	5.33
8	7.5-10.0	1.74
9	10.0-20.0	0.77
10	20.0 & ABOVE	0.02

source: [22]

TABLE A.7: Comparative Yield of Select Crops in Various Countries (Kg/ha)

Country	Crop				
	Paddy	Wheat	Maize	Groundnut	Sugarcane
India	2929	2583	1667	913	68012
China	6321	3969	4880	2799	85294
Japan	6414	-	-	2336	-
SA	6622	2872	8398	3038	80787
Indonesia	4261	-	2646	1523	-
Canada	-	2591	7974	-	-
Vietnam	3845	2711	4313	1336	65689

Source: Table 3 of the Fifth NCF Report based on Agriculture At a Glance [2002] Ministry of Agriculture.

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