



## Minor Crops in Bangladesh: Scope and Limitations

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**Abstract:** Minor crops are not available in all the time. These crops are less in number. Minor crops are basically cultivated in fewer amounts and it is cultivated in certain period of time. The study was conducted in two villages, one was from Tarash Upazila under Sirajgonj District and another was from Rajbari Sadar Upazila under Rajbari District. This study was conducted on the period of two month starting from June to July, 2013. The sample size was 30 (15 from each area). There are some minor crops in those two areas. Those minor crops are *Barly, Jab, motor, Cheena, kaon, khesari, Til, Groundnut, Mashkalai, Soyabean*. In the past those minor crops were cultivate in large amount. At present the numbers of minor crops are decreasing. There are some reasons of decreasing minor crops at present. The demands of minor crops are decreasing. The seeds are not available. These minor crops are not profitable. There are some special used of minor crops. For example; Oil can be made from Soyabean and it is used to cook food. *Kaon* can be used to make one kind of Bengali sweet which is called *khir or payes*. The traditional cultivation tools are used to cultivate minor crops. For example; cow is used to plow the land. There is less use of modern cultivation tools. There are some problems of minor crops. It takes long time to cultivate minor crops. There are some diseases of minor crops which can destroy the production of minor crops. These minor crops are not profitable. From our study we got that people should be aware to avoid the problems of minor crops.

**Keywords:** Minor crops; Prospects; Limitations.

### 1. Introduction

Minor crops refer to crops that might have high value but that are not widely grown. Minor crops are those crops which are not cultivated in huge areas and quantities. Bangladesh is the land of agriculture or country of agriculture. Lot of crops has been cultivated in Bangladesh. Few of crops which have been reduced its number and production. There are lots of reasons behind it for the decreasing number of those crops.

However, Bangladesh is endowed with a favorable climate and soil conditions for the production of a variety of crops round the year. Minor crops area big concern for Bangladesh because it is really very important for Bangladesh. The country will be loss few of them and the crops will be in the state of extinction. [Bangladesh Bureau of Statistics Agricultural Wing Crop Statistics \(Minor Crops\) \[1\]](#) has made a list of minor crops of Bangladesh. List of minor crops in Bangladesh are appended below.

**Table-1.1.** Lists of Minor Crops in Bangladesh

List of Minor Crops
<i>Barly(Jab), jower, bazra, maize, cheena, kaon, gram, arhar, masur, motor, mung, mashkalai, khesari, garikalai, til, rape, mustard, groundnut and soyabean</i>

[Hoque and Enamul \[2\]](#) accounted that the farming of minor crops with pulses, oilseeds, vegetables, fruits, spices, etc., is currently waning to present for the required sustenance in the daily diet of the people. The situation will lead to species extinction and that could not be allowed to continue. Accelerated production of minor crops, complementary but not competitive with major food crops production as per the requirement for decreasing pressure on cereals, will be pursued during the Fifth Plan period. This will enrich the daily diet of the people, generate rural employment by intensive cropping with modern technologies, increase farm's income and thereby increase the purchasing power of the rural masses. It will also progress the balance of payments by promoting import substitution and export oriented crops.

Introduction of the Crop Diversification Program in agriculture has generated a excellent opportunity to commercialize the production by small holding farmers of those minor crop varieties which are highly profitable and remunerative and which are import substituting and export-oriented through the formation of community storage and easy transportation facilities. More than 20 crop varieties along with upgraded cultivation practices were so far developed for crop diversification. Moreover, land use inventory capabilities were developed and transferred to the Soil Resource Development Institute (SRDI) for on-going use and application.

According to “Impact of Reforms in Agricultural Input Markets on Crop Sector Profitability in Bangladesh” Zohir [3] stated that it is generally agreed that timely availability of fertilizer has been more important in influencing its use than variation in its prices at the margin.

As per “Crop Diversification in the Asia-Pacific Region” Papademetriou, *et al.* [4] stated that the rate of population increases was 2.8 percent during the 1960's in Bangladesh. To feed the ever increasing population, the Government placed importance on the production of cereals crops, mainly rice, with the introduction of HYVs of rice and wheat both from home and abroad by launching ‘Green Revolution’ and ‘Grow More Food’ programs resulting, production of major cereal crops i.e., rice and wheat, increased massively. But the production of minor cereal crops like pulses, oilseeds, vegetables, fruits and spices declined in continuum or gradually year after year and finally failed to keep pace with the quick population growth. This involved the use of a huge amount of valuable foreign exchange in importing those minor cereal crops to improve the nutritional and nutrient status of the people and of the soils. Minor cereal crops are relatively inexpensive sources of protein and calorie and they also have a positive impact on the nutrient balance of the soil. The farmers can easily cultivate these crops after harvesting the major ones rotationally. With this realization and to reduce the huge drain of foreign exchange in importing those crops, the Government of Bangladesh launched a Crop Diversification Program (CDP) in the 1990's. After mass awareness creation through demonstrations and other mass media, the farmers started adopting this program. Till now there is no statistics on minor crops in Bangladesh. There is urgent need to conduct study on minor fruits covering scope and its limitations withhold. In this study, the prospect and problem of minor crops were addressed.

The main objective of the study was to know the prospects and limitations of minor crops in Bangladesh. The other objectives were to i) list down of minor crops in the study areas; ii) know the role of minor crops in biodiversity; iii) know about the products produced/derived from minor crops; iv) find out problems related to minor crops; and v) recommend solutions to overcome the problems.

## 2. Methodology

This is basically survey type of study. The study was conducted in two districts- in Sirajgonj and Rajbari District. This study was concentrated in two villages, one was from TarashUpazila under Sirajganj District and one was from Rajbari Sadar Upazila under Rajbari District. This study was conducted on the period of two month starting from June to July, 2013. Both primary and secondary data were used in this study. Total 30 respondents were selected (15 from each area) considering age category. Respondents' category was as follows:

- i. Category A: Age below 30 years.
- ii. Category B: Age between 30-50 years.
- iii. Category C: Age above 50 years.

Total 30 respondents were selected randomly for the interview. Semi structured questionnaire were used in guiding interview. Finally all the data were collected and analyzed and presented in tabular form in the report.

## 3. Result

### 3.1. The Study Area

The study was concentrated at the rural village level to find out in depth information on it. Two villages were selected for the study (One village from each district). One village was from Rajbari sadar Upazila and another village was form Tarash upazila under Sirajgonj District.

### 3.2 Family Size of the Respondents

The total number of respondents was 30. 15 respondents were from Rajbari District and another 15 respondents were from Sirajgong District. Family size was minimum two and maximum ten. Total populations were 121, among them male were 59 and female were 62. 27% of total populations less than 15 years old, 37% are (15-30), 15% are (30-45), 16% are (45-60) and only 5% are 60 years old above (Table 3.1).

Table-3.1. Family size of respondents

Sex	Age Group	Age Group	Age Group	Age Group	Age Group
	<15	15<30	30<45	45<60	>60
Male N=59	15(25)	22(37)	10(17)	11(19)	1(2)
Female N=62	18(29)	23(37)	8(13)	8(13)	5(8)
All N=121	33(27)	45(37)	18(15)	19((16)	6(5)

N=number, Figure in bracket indicates percentage value

### 3.3. Educational Status of the Respondents' Family

The person of age 15 education rate is not so bad. In this age level most of the people completed primary and secondary education. 56% female and 53% male completed primary education and 44% female and 40% male completed secondary education (Table 3.2). The ages of people 15-30 are more educated. Among them 65% female and 55% male completed primary school. And 22% female and 36% male completed secondary education. The person of age above 60 years is illiterate.

**Table-3.2.** Educational status of respondents' family

Age Group	Sex	Illiterate	Primary	Secondary
<15, N=33	Male, N=15	1(7)	8(53)	6(40)
	Female, N=18		10(56)	8(44)
15<30, N=45	Male, N=22	2(9)	12(55)	8(36)
	Female, N=23	3(13)	15(65)	5(22)
30<45, N=18	Male, N=10	2(20)	4(40)	4(40)
	Female, N=8	4(50)	3(38)	1(12)
45<60, N=19	Male, N=11	5(45)	5(45)	1(10)
	Female, N=8	6(75)	2(25)	
>60, N=6	Male, N=1	1(100)		
	Female, N=5	5(100)		
All N=121	All N=121	29(23.97)	59(48.76)	33(27.27)

N=number, Figure in bracket indicates percentage value

### 3.4. List of Minor Crops

List of minor crops have been found. Minor crops are those crops which are cultivated in a less number of amounts. From our survey, we got some minor crops of Rajabari and Sirajgong districts. Those are Barly/Jab, motor, Cheena, kaon, khesari, Til, Groundnut, Mashkalai, Soybeans. Most of people respondents of Rajbari District said that Khesari was cultivated in large amount (86.66%, [Table 3.3](#)) in the past but now its cultivation is less number of amounts. Most of the respondents of Sirajgonj District said that Kaon was cultivated in large amount (73.33%, [Table 3.4](#)) in the past but now its cultivation in less number of amounts.

**Table-3.3.** List of Minor Crops in the study area

List of Minor Crops	Rajbari District			All N=15	Sirajganj District			All N=15
	Category A N=5	Category B N=5	Category C N=5		Category A N=5	Category B N=5	Category C N=5	
Barly/Jab	2(40)	3(40)	4(80)	9(60)				
Motor	3(60)	4(80)	5(100)	12(80)	4(80)	3(60)	5(100)	12(80)
Cheena	2(40)	4(80)	5(100)	11(73.33)	2(40)	3(60)	4(80)	9(60)
Kaon	2(40)	5(100)	5(100)	12(80)	3(60)	4(80)	4(80)	11(73.33)
Khesari	3(60)	5(100)	5(100)	13(91)				
Til	2(40)	3(60)	4(80)	9(60)				
Groundnut	3(60)	2(40)	4(80)	8(60)				
Soyabean					3(60)	4(80)	3(60)	10(66.66)
Mashkalai					3(60)	4(80)	1(20)	8(53.33)

N=number, Figure in bracket indicates percentage value

### 3.5. Present and Past Status of Minor Crops

In the past, minor crops were cultivated in a large number and it was available. Now present time. Minor crops have been decreased. In the past it was easy to cultivate those minor crops and the demand of minor crops were high. But day by day, minor crops have been reduced in number. 86.66% people ([Table 3.4](#)) think that in the past minor crops was available comparing the present. Both Rajbari and Sirajgong districts area's people think that minor crops were available in the past and now it has been decreasing.

**Table-3.4.** Present and past status of minor crops in Rajbari District

Present Status	Sirajganj				Rajbari			
	Category A N=5	Category B N=5	Category C N=5	All N=15	Category A N=5	Category B N=5	Category C N=5	All N=15
High	1(20)	2(40)	2(40)	5(33.33)	1(20)	2(40)	1(20)	4(26.66)
Low	4(80)	3(60)	3(60)	10(66.67)	4(80)	3(60)	4(80)	11(73.33)
Past Status								
High	4(80)	4(80)	5(100)	13(86.66)	4(80)	4(80)	5(100)	13(86.66)
Low	1(20)	1(20)	0(0)	2(13.33)	1(20)	1(20)	0(0)	2(13.33)

N=Number. Figure in parenthesis indicates percentage value

### 3.6. The Reason behind Not to Cultivate Minor Crops in Large Amount

There are some reasons why people do not cultivate minor crops in a large number. From the Rajabari and Sirajgong districts we have got some reasons. Those reasons are:

- The seeds are not available.
- There is no high profit in cultivating minor crops.
- There is high cost of cultivating minor crops.
- The demands of minor crops are decreasing day by day.
- It is difficult to cultivate those minor crops.
- The productions of minor crops are not good because of lacking of good seeds.
- Farmers do not get sufficient help from the agriculture office to cultivate those minor crops.

Basically those are the reasons which are mentioned in the above that is why the cultivation of minor crops is decreasing day by day. Most of the people (both Rajbari and Sirajgong) think that Because of low profit (66.67%), decreasing demand (63.33%), lack of good seeds (66.67%), and insufficient help from Agricultural Office (70%), farmers do not want to cultivate minor crops (Table 3.5).

**Table-3.5.** The Reason behind not to cultivate minor crops in large amount both Rajbari and Sirajgong District

Reasons	Category A N=10	Category B N=10	Category C N=10	All N=30
Seeds Unavailable	6(60)	5(50)	4(40)	15(50)
Low Profit	7(70)	7(70)	6(60)	20(66.67)
High Cultivation cost	5(50)	6(60)	6(60)	17(56.67)
Decreasing Demand	5(50)	6(60)	8(80)	19(63.33)
Difficult to Cultivate	4(40)	6(60)	7(70)	17(56.67)
Lack of Good Seeds	5(50)	7(70)	8(80)	20(66.67)
Not getting Sufficient from Agricultural Office	5(50)	8(80)	8(80)	21(70)

N=Number. Figure in bracket indicates percentage value

### 3.7. Product Produced From Minor Crops

There are some products which are produced from minor crops. The lists of those products are given below:

**Table-3.6.** Products produce from minor crops (Both Rajbari and Sirajgong Districts)

Crops Name	Product Produced from Minor Crops
Barly	Make drinks
Jab	Eatable Powder (Chatu)
Motor	Cooking Curry, it is eatable.
Khesari	Pulse (Dal), Cooking Curry
Kaon	Khair or Payes, Rice, Sweet Ball (Mouya)
Til	Oil, Sweet (Khaza)
Soyabeen	Oil
Mashkalai	Pulse (Dal)

**Barly:** From Barly we can make drinks which are healthy and hygienic. We can have Barly.

**Jab:** We can make its powder it is called chatu in Bengali. We can have that. It is healthy and hygienic.

**Motor:** We can use motor to cook curry. We can have motor.

**Khesari:** It is one kind of pulse (Dal). We can cook khesari.

**Kaon:** It can cook to make a delicious Bengali sweet, in Bengali it is called khair or Payes. We can have kaon as rice. Sweet ball can be made from kaon, in Bengali it is called Mouya.

**Til:** We can get the oil from Til. Til can be used to make one kind of sweet called Khaza.

**Soyabeen:** From Soyabeen we get oil. Oil is used to cook to anything.

**Mashkalai:** It is one kind of pulse (Dal). It is eatable.

### 3.8 Problems of Minor Crops

There are some problems of minor crops. Most of the people (70%, Table 3.6) of Rajbari and Sirajgonj districts think that diseases are the main problem of minor crops. Farmers are afraid of diseases so they do not go for large cultivation of minor crops.

Table-3.7. Problems of Minor Crops

Problems	Category A N=10	Category B N=10	Category C N=10	All N=30
Less Production	4(40)	6(60)	7(70)	17(56.66)
Insect attack	6(60)	7(70)	7(70)	20(66.66)
Diseases infestation	7(70)	6(60)	8(80)	21(70)
Lack of seeds	6(60)	6(60)	5(50)	17(56.66)
Time consuming	7(70)	6(60)	6(60)	19(63.33)
Needs special care	6(60)	7(70)	6(60)	19(63.33)

N=number, Figure in bracket indicates percentage value

## 4. Discussion

Minor crops are decreasing day by day. From our data analysis we got some minor crops which are Barly, *Jab, motor, Cheena, kaon, khesari, Til, Groundnut, Soyabeen and Mashkalai*. From our data analysis we got that in the past minor crops were available but now the number of minor crops are decreasing. The demands of minor crops were high but now the demands of minor crops are decreasing. We found that farmers are not interested to cultivate minor crops in present. There are some reasons behind that accelerate farmers not to cultivate minor crops. Those reasons are likely i) seeds are not available; ii) high profit in cultivating minor crops; iii) high cost of cultivating minor crops; iv) demands of minor crops are decreasing day by day; v) it is difficult to cultivate those minor crops; vi) productions of minor crops are not good because of lacking of good seeds; and vii) farmers do not get sufficient help from the agriculture office to cultivate those minor crops. There is problem of getting seeds on time. Farmers usually face the problem of finding seeds. Now a day, minor crops are not profitable. Farmers have to pay a huge cost for cultivation of minor crops. But they do not get their desired money at the time of sales. So they are losing interest on cultivating of minor crops. And also the weather is changing very frequently. So it is difficult to cultivate minor crops. And also other profitable crops are available in the market so farmers are cultivating those crops to make more profit. So the cultivation of minor crops is decreasing day by day. The people of Bangladesh are not aware of modern cultivation system. So they usually do not use modern cultivation system. The most of the farmers of Bangladesh are uneducated so they do not aware. And also there are huge costs of modern tools. But it is comparatively low cost to use traditional tools. Farmers use traditional tools to cultivate minor crops like cow, ladder and so on traditional crops. The costs of traditional tools are low and it is available all over Bangladesh. So farmers are interested to use traditional tools. But at present, some farmers are using modern cultivation tools. But its number is really low. There are some products which are produced from minor crops. *Kaon* can be used as rice. We can make one kind of Bengali sweet which is called *khir or payes* in Bengali word. Barly can be used as drinks. We can drink barly drinks. Barly is one of the popular foods of children all over Bangladesh. We can make powder from Jab. It is really great to eat that power. Motor can use to cook curry. *Khesari* is one kind of pulse (Dal). We can cook *khesari* and have it. From *Til* we get oil. Soybeans are one of the favorite's crops in all over Bangladesh. From Soyabeans we get oil. It is really difficult to cook food without oil. *Mashkalai* is one kind of pulse (Dal). We got some problems of minor crops from analyzing the data. The production of minor crops is not good amount. Farmers get less amount of minor crops comparing others crops, although all farmers work hard to grow crops. There is a problem of insect. Insects destroy the minor crops. So farmers get fewer amounts of crops. Medicine is not available so they cannot remove those insects. There are several diseases of minor crops destroy the minor crops production. So, farmers do not get their desired amount of product. And the big problem is that seeds are not available. If they wish to cultivate minor crops so they cannot cultivate those minor crops on because of unavailable of seeds of minor crops. The cultivation processes of minor crops are time consuming. It takes long time to cultivate minor crops. If farmers do not get the products of their desired amount, they will not be interested to cultivate those crops. Minor crops need extra care. Minor crops have good food value. Minor crops can fulfill the food demands of Bangladesh. Farmers will cultivate in large number if they get help from the Government. The agriculture department should give a look at the production process and try to solve those problems. This will help the farmers to cultivate minor crops in large amount of number.

## 5. Conclusion

At the end of our study, we can say that there is an opportunity of minor crops in Bangladesh if it gets proper care. Minor crops are not available all the time. And also those crops are not available all the time. Agricultural research institute should invent some good seeds of minor crops. As Bangladesh is agricultural country so it is not difficult for the researchers to invent some good seeds. People are using the traditional tools. Traditional tools cannot help the farmers to produce more crops. So farmers need modern tools to cultivate minor crops. As most of the farmers of Bangladesh are illiterate so Government should take the steps to learn people about the use of modern cultivation tools make the people aware. And also Government should provide some financial help to maintain the cost of modern cultivation tools. The seeds of minor crops are not available. So Government should ensure the availability of seeds of minor crops. Necessary medicine should be available in the local area so that farmers can use that medicine to protect crops from insects. Farmers should use organic cultivation process to increase the production of minor crops. The productions of minor crops are decreasing only because of using more fertilizer. More fertilizer destroys the ability of soil so soil cannot grow more crops. We get some products from minor crops.

If we able to increase the use of those product, it can create the demand of people. So farmers will able to earn more profit. And they will be interested to cultivate minor crops in large amount. Minor crops have a good nutrition value. Minor crops can fulfill the nutrition of human body. So we should take a step to increase the amount of minor crops.

## **6. Recommendations**

We have some recommendations about minor crops. Those recommendations are given below:

- Minor crops are decreasing day by day. So we should try to save minor crops from extinct.
- We can arrange minor crops fair to introduce minor crops to general people. And we should show the food value and nutrition value of minor crops.
- Agricultural Department should take step to save minor crops. They should do research and find out easy cultivation process for minor crops.
- We can arrange an exhibition on products produce from minor crops. And its food value and nutrition value.

## **References**

- [1] Bangladesh Bureau of Statistics Agricultural Wing Crop Statistics (Minor Crops), 2008-2009.
- [2] Hoque, M. and Enamul, 2002. Report on "Crop Diversification in Bangladesh."
- [3] Zohir, S., 2001. Report on "Impact of Reforms in Agricultural Input Markets on Crop Sector Profitability in Bangladesh."
- [4] Papademetriou, K., Minas, Dent, J., and Frank, 2001. Report on "Crop Diversification in the Asia-Pacific Region."