

## **RISKS IN AGRICULTURAL AND SEASONAL CREDIT : THEIR CAUSES AND CONSEQUENCES IN THE CONTEXT OF PARTNER ORGANISATIONS OF PALLI KARMA-SAHAYAK FOUNDATION (PKSF) IN BANGLADESH**

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*The economy of Bangladesh is greatly dependent on agriculture. The farmers, especially the small and marginal farmers have lack of capital. To overcome this problem, PKSF has disbursed a large amount of collateral free agriculture and seasonal credit to the farmers. But there are lots of risks, which negatively contribute to the agricultural production and ultimately affect loan recovery. Keeping these issues in view, this study has been conducted with the objectives to: (i) assess the risks in agricultural and seasonal credit operations; (ii) find out the causes of the risks and (iii) formulate suitable strategies to overcome the identified risks. This paper has been written based on both primary and secondary information. Primary information was collected through Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) during March 2014 to April 2014. Secondary information has been collected from literature review, articles published in journals, evaluation and project completion reports, project documents, PKSF annual reports, etc. The important risks in agriculture credit disbursement identified by the study are: natural disaster, lack of electricity, lack of labour supply during the harvesting period, unwillingness to repay loan, lack of technical support and training, lack of agriculture inputs, defalcation of money by the field workers, lack of adequate loan, diversion of loan in unproductive sector, providing multiple loans, political instability, lower price of farmers produce, higher service charge of loan, uncertainty of loan on time, etc. Some of the risks identified in agriculture credit disbursement like disaster, lack of technical supports, unwillingness to repay loan, political risk, risk of providing parallel loans, risk of higher service charge and lack of agriculture inputs are also same for seasonal credit disbursement. Death of livestock, lack of knowledge on livestock rearing, reduced demand of cattle after Eid-Ul-Azha and involvement of POs staff with the members for selling their products are few other risks in seasonal credit disbursement. The study identified that borrowers are unable to repay loan mainly due to use of money for household consumption. Due to inadequate capacity of MFIs, they are not able to impart adequate training to the farmers on agriculture technologies and input use. Sometimes farmers do not have access to adequate agriculture inputs because of*

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*lack of market linkage, shortage of agriculture inputs at the local markets and lack of proper knowledge of farmers on good agriculture inputs. Lack of contact and long-term grace period are some of the causes of defalcation of money by the field workers. Farmers received loan from multiple sources mainly because of single source cannot fulfill their demand. Some political violence like hartal (shut down), vehicle strike, road blockade, etc. affect the market price. To mitigate the risks in agricultural and seasonal credit disbursement the study recommended introduction of crop and livestock insurance, creation of agriculturist position in MFIs, construction of cold storages by the MFIs to preserve produced crops, strengthening monitoring and supervision of loan utilisation, introduction of appropriate loan ceiling, collection of service charge on the basis of actual duration of loan and implementation of flexibilities in loan repayment.*

## **1 Introduction**

### **1.1 Background of the Study**

Bangladesh economy is primarily agrarian in nature. Agriculture is the main livelihood of majority of households in Bangladesh. About 55 percent of its total households depend on agriculture for their livelihoods and this is prevalent mainly in rural Bangladesh.

Major constraints in the growth of agriculture sector and improvement of condition of farmers -- particularly the small and marginal farmers -- are inadequate capital and land, exposure to natural disasters, inadequate access to quality seeds/inputs, etc. Conventional Microfinance Institutions (MFIs) are less interested to disburse loan to agriculture sector due to high degree of recovery risk. Under such a situation, Palli Karma-Sahayak Foundation (PKSF) -- an apex development organisation for poverty alleviation and employment generation established by the Government of Bangladesh in 1990 -- designed and launched a separate programme named Agriculture Sector Microcredit (ASM) programme in September 2008. The main objective of this programme was to develop capacity of the small and marginal farmers and provide them need-based microcredit for improving their socio-economic status. Agricultural loan is disbursed for various kinds of agricultural activities such as crop cultivation, livestock rearing, fish culture, crab culture, agro-forestry, agro-processing, sericulture, apiculture, mushroom cultivation, nursery, salt cultivation, etc. Under ASM programme, PKSF has so far disbursed 36.28 million USD in FY 2011-2012 and 42.97 million USD in FY 2013-14 (PKSF Annual Report-2012, 2013, 2014).

On the basis of the last two and a half decades of working experience in the microfinance sector, PKSF has noticed a relatively higher demand for loan

at the farmers' level before some occasions like Eid-UI-Azha, the Muslim festival for cow/goat sacrifice. To respond to this demand, PKSf introduced Seasonal Loan (SL) programme since July 2006. This programme has been especially designed for the households engaged in a variety of seasonal activities. The objective is to provide need-based seasonal loan to the microcredit recipients so that they can produce their seasonal crops and get proper price. This loan is meant for many Income Generating Activities (IGAs) such as crop cultivation, livestock rearing, fish culture, agro-forestry, agro-processing, seasonal business, etc. Under SL programme, during FY 2011-2012, PKSf disbursed 74.71 million USD to its Partner Organisations (POs), which was about 48 percent higher than the previous FY. Moreover, in FY 2013-14, PKSf disbursed 94.05 million USD to its concerned POs, which is 12.07 percent higher than the planned budget (PKSf Annual Report-2012, 2013, 2014).

Both Agriculture and Seasonal loan have some flexibility in repayment schedule, e.g. weekly/fortnightly/monthly or single installment basis according to nature of agricultural activities. Since inception of the programme up to 2014, PKSf organised 17,72,380 members under ASM and 25,52,112 members under SL. Every year PKSf prepares and operates a separate budget for seasonal and agriculture loans. Its demand is increasing day by day. Up to 2013-14, PKSf disbursed a cumulative amount of 180.24 million USD as agriculture loan and 363.52 million USD as seasonal loan. Year-wise disbursement of loan by PKSf to its partner organisations against agriculture and seasonal activities is shown in Table 1.

Overall, there is an increasing trend in agriculture and seasonal loan disbursement from 2008-09 to 2012-14. Disbursement increased more than three times higher in 2013-14 compared to 2008-09. This indicates that the loans have huge demand in the field. PKSf disbursed 11.52 million USD agriculture loan and 24.54 million USD seasonal loans in 2008-2009, which increased to 42.99 million USD in 2013-14 and 94.05 million USD in 2013-14 respectively. Disbursement of seasonal loan is significantly higher than that of agriculture loan. One of the reasons may be the longer period of implementation of seasonal loan than that of agriculture loan. Another reason may be that some agricultural activities like livestock rearing, crop and vegetable cultivation, fish production, etc. are seasonal based, which may be covered under seasonal loan instead of agriculture loan.

Although PKSf has disbursed a large amount of loan in agriculture sector, it has found some risks in disbursing such loans. These risks include natural

disaster, lack of electricity, inadequate labour supply during harvesting period, lack of good quality seed, improper use of insecticides, etc. All these risks negatively contribute to the agricultural production and ultimately affect loan recovery in the agriculture sector. Hence, it is important to know the risks of agriculture and seasonal credit and find out the strategies to overcome these risks. A number of studies have been conducted to identify the risks of agriculture credit in Bangladesh. But these studies could not suggest mitigation strategies against the risks (Echborn, 2004; FAO Corporate Documents, 2004). In this backdrop, this Study has been conducted with the following objectives:

## **1.2. Objectives**

The broad objective of the study is to assess the risks in agriculture and seasonal credit along with its causes in the context of credit operations of PKSF. The specific objectives of this study are to:

- i) assess the risks in agricultural and seasonal credit operations;
- ii) find out the causes of risks in agricultural and seasonal credit; and
- iii) formulate suitable strategies to overcome the identified risks.

## **1.3 Definition of Risk**

A probability or threat of damage, injury, loss or any other negative occurrence that is caused by external factors or vulnerabilities which may be mitigated through preemptive action is termed as risk (Business Dictionary.com). There are so many risks like disaster risk; financial, social, business, market, flood risk, etc. In this Study, risks related to agricultural and seasonal credit have been considered.

## **1.4 Study Methods**

The study has been conducted on the basis of both primary and secondary information. Secondary information has been collected through literature review, articles published in journals, evaluation and project completion reports, project documents, PKSF annual reports, etc. Researchers also collected primary information through Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) during March 2014 to April 2014. Twelve KIIs have been conducted on twelve different Microfinance Institutions (MFIs) dealing with agriculture and seasonal credit. In this regard, at the first stage, the Partner Organisations (POs) that disbursed both agriculture and seasonal

credit were listed. Then, twelve POs -- four from each of large, medium and small categories -- were selected using simple random sampling technique. Here 'large PO' means their loan outstanding is more than 12.87 million USD, 'medium PO' means loan outstanding between 6.43 to 12.87 million USD and 'small PO' means loan outstanding is below 6.43 million USD. List of selected POs are mentioned in Table 2.

### **1.5     *Scope of the Study***

The study focuses on risks in agriculture and seasonal credit along with its causes in the context of PKSF POs. It has covered the issues like risks related to agricultural and seasonal credit operations, causes of risks in agricultural and seasonal credit and mitigation strategies of identified risks. The important variables included agricultural credit, seasonal credit, types of risks, causes behind the risks and risk mitigation strategies.

### **1.6     *Limitations of the Study***

The information used in this study is mainly qualitative in nature, which was collected through KIIs, FGDs and secondary sources. In some cases, information was also collected over telephone, which lacks visual observations of the researchers. Respondents of the study were selected purposively considering the relevance with agriculture and seasonal credit. In the many cases, interviewees were busy with their works during the interview. As a result, interviewers had to attend same interviewee several times, which broke continuity of interview. However, researchers ensured quality of data through cross checking.

## **2            *Risks in Agricultural Credit and Its Causes***

Lending to farmers is a challenging task. Providing loan to small farmers is a political agenda in many countries, governments and donors. Their lending approaches in agricultural sector have changed drastically over the last few decades. Since 1950s, governments and donors have been spending a large amount of money on agricultural credit programmes, particularly for highly subsidised farm loans. However, in many countries these credit programmes have shown disappointing results due to different types of risks. A flow diagram of important risks in agricultural and seasonal credit and their causes is given in Fig.1. This section describes the important types of risks in agricultural credit along with their causes.

## **2.1 General Risks and Its Causes**

### **2.1.1 Diversion of Loan**

Diversion of loan from the planned purpose may affect the repayment capacity of the borrowers. Some farmers received loan from the MFIs by showing that they would use the loan in Aus/Aman rice cultivation, but they actually used it in wheat cultivation. The problem is cultivation season of rice is not the same as that of wheat. As a result, organisation faces risk to collect loan timely. On the other hand, some farmers used a portion of loan for production purpose and the rest for household consumption, which increases the risk in loan recovery. The important reasons behind the diversion of loan are:

- i) Lack of awareness or evil motive of the borrowers regarding the use of loan for the planned purpose and
- ii) Inappropriate selection of borrowers by the MFIs. Sometimes field workers select such type of borrowers who might not be able to repay the loan on time and then MFIs face such types of risk.

### **2.1.2 Unwillingness to Repay Loan**

According to agricultural loan repayment policy of PKSF, members can repay their loans fortnightly/ monthly/ six monthly. In reality, POs collect it on six monthly bases. As a result, the total duration of loan, six months, is considered as grace period for the members. Therefore, this long grace period is one of the reasons for unwillingness to repay loan. After long time, the borrowers may forget about their repayment obligation. Moreover, it is difficult for the borrowers to repay a large amount of loan at a time. Furthermore, it has also been found that the field workers could not select farmers properly, which created constraint to recover loan from the borrowers (From KIIs). The specific causes behind the unwillingness to repay loan are:

- i) When farmers get money after selling their product, they are most often compelled to use it for their household purpose because of poverty.
- ii) MFIs have a rule to repay loan exactly after six months, which is the harvesting period of farmers' product. At that time, price of the commodity is very low and farmers do not want to sell their commodity at a low price, thus they are unwilling to repay the loan.
- iii) Inappropriate selection of farmers by the field workers.

## **2.2 External Risks and Its Causes**

### **2.2.1 Production Risk**

Agricultural production is generally uncertain due to natural hazards such as weather, pests, diseases and other production related calamities; which have negative impact on farm outputs. Even slight change in weather condition can seriously affect the farm production. Pests and diseases may spread quickly, which leads to loss of crops. Soil quality of the plots as well as their location also significantly influences productivity (Eschborn, 2004).

### **2.2.2 Price and Market Risks**

Price fluctuation during the planting and harvesting period of crop, and rearing and selling time of livestock creates uncertainty on net return. This happens mainly due to longer time required for harvesting period of produce and lack of market information or imperfect market. This problem is particularly relevant for long term agricultural activities (Eschborn, 2004).

In Bangladesh, during the harvesting period, prices of the commodities are relatively low, as such farmers do not want to sell their produces immediately after harvesting. Therefore, they have a tendency to repay the loan after the repayment schedule. This creates a risk on loan realization. On the other hand, if transportation facilities are not good, farmers cannot sell their products at distance market. Therefore, they have to sell their products in local market with lower price. Moreover, due to lack of market information, farmers do not get actual price of their commodities. Detail causes behind the lower price of farm produces are stated below:

- i) During the harvesting period, supply of the commodities is more than the demand. Therefore, prices of the commodities are very low and farmers get lower price.
- ii) In some cases, the commodities that farmers produce have no demand for local consumption. As such, farmers cannot sell their products at the local market with competitive price and they are deprived of a fair price.
- iii) Some middlemen create syndicate to buy farmers' produces at a price fixed by them which is lower than or equal to farmers' production cost.



Sometimes, government fixes prices of some commodities, which is even less than the farmers' production cost. On the other hand, due to lack of transport facilities, it is not possible for farmers to sell their products at distance market and they are deprived of a fair price.

iv) Lack of knowledge and initiative of farmers to sell their products through co-operatives.

v) Packaging system of the commodities is not good.

vi) Sometimes Indian Hybrid seeds are available in Bangladeshi market at cheaper price.

vii) In some areas, irrigation water suppliers made syndicate and force farmers to provide one-fourth of their produce to the suppliers, otherwise they do not provide water to farmers' land, by which farmers are deprived of getting appropriate return.

### *2.2.3 Natural and Manmade Disaster*

Due to flood, cyclone, excess rainfall, drought, hailstorm, lack of electricity, inadequate labour supply, etc. farmers get less production than their expectations. This affects their ability to repay the loan on time. Manmade disasters due to over use of insecticide, cattle lifting, use of agriculture land for brick field, late germination, industrial pollution of river or agriculture land, etc. affect crop production, which ultimately affect loan recovery rate and increase overdue loan day by day (From KIIs). The important reasons behind the manmade disasters are lack of appropriate knowledge on use of agricultural inputs and ignorance regarding the social obligations as a human being. Major cause for intensified natural disaster is believed to be the climate change.

### *2.2.4 Lack of Quantity and Quality of Agriculture Inputs*

Sometimes agriculture inputs like fertilizer, good quality seed and vaccine for livestock are not available in the market. Consequently, farmers cannot use the inputs in the field properly. On the other hand, if insecticide is not properly used in the field, crop production falls and farmers get lower yield than their expectations. Therefore, MFIs face problem to get back their money from the farmers (From KIIs). Causes behind the lack of quantity and quality of agriculture inputs are lack of market linkage, shortage of agriculture inputs at the local markets, lack of proper knowledge of farmers on good agriculture inputs, storage of agriculture inputs, etc.



### *2.2.5 Lack of Technical Support and Training*

A large number of farmers are not aware of modern agricultural technologies. Generally, they use what they have learned from their fathers and neighbors. Therefore, in the most cases, they use conventional knowledge rather than modern technology and get lower yield. So, if the MFIs can engage agriculturists to help the farmers on knowledge dissemination about appropriate fertilizer application, use of proper insecticide, irrigation, crop varieties, etc., that will help farmers get better yield from their land (From KIIs). The important reason for lack of technical support and training is the inadequate services of government agriculture personnel to the farmers. On the other hand, MFIs do not have adequate capacity to impart training to the farmers on agriculture technologies and inputs.

### *2.2.6 Lack of Preservation Facilities of Commodities*

Generally, prices of the commodities are low in harvesting period and members do not get fair price of their commodities. Due to lack of storage facilities members cannot preserve their commodities for a long time. On the other hand, members are compelled to sell their product immediately after harvest in order to repay loans. MFIs are not able to build cold storage for farmers. In this case, it will be helpful if PKSf provides financial support to the POs to build cold storage for agricultural produce.

### *2.2.7 Provision of Parallel Loans*

It has been observed that whenever agricultural loan and Rural Microcredit (RMC) loan are provided simultaneously to the farmers, some of them are not able to utilise both loans effectively at the same time. Sometimes farmers have repaid their previous loan after getting a new loan, which created constraint to generate adequate income from loan. Thus they faced problems to repay loan timely. In some cases, MFIs cannot assess the actual demand of loan of the farmers. As a result, they provide money to the farmers more than their actual need, which creates problem during loan repayment time (From KIIs). The important reasons for risk of providing parallel loans are:

- i) In the most cases, members are not able to utilise parallel loans effectively. Money is fungible. As such, some farmers use a portion of loan for household consumption and procure unproductive assets that cause inability to repay loan timely.
- ii) Due to lack of accurate information, MFIs cannot assess the actual demand of loan of members, Therefore, MFIs are not properly informed

regarding the actual need of loan, which creates risk during the repayment time.

### *2.2.8 Uncertainty of on Time Loan*

In some cases, agriculture loan is not provided on time to the members. One of the reasons is that it requires more time to process. It has been reported by the POs that it takes at least three weeks to process such loans at PKSf. In the meantime, peak time of cultivation passes away. In this situation, members may not be able to use primary inputs on time which reduces yield.

### *2.2.9 Defalcation of Money by the Members*

Agriculture loan needs to be repaid in one installment after six months, that's why contact with the members is less than the normal microcredit programmes. The members do not attend the weekly group meeting regularly, which creates fewer contacts with the MFIs. Sometimes, members migrate to other places without repaying loan. The long-term grace period is one of the main causes of this risk. Occasionally, loan is defalcated by some members.

### *2.2.10 Inadequate Size of Loan*

It has already been mentioned that agriculture loan ceiling is maximum of 643.74 USD and the first loan ceiling should not exceed 257.50 USD. For purchasing cow, this amount is insufficient. Therefore, farmers take additional loans from other sources and they have to obey the rules and regulations of both institutions. This creates a risk for MFIs to get back loan from the borrowers on time. The main reason for inadequate loan ceiling is the policy constraint of MFIs. Agriculture loans are provided for different agriculture-based IGAs, but the 1st loan ceiling of 257.50 USD is fixed for all kinds of IGAs on agriculture. But different IGAs need different sizes of starting money. So loan ceiling for agriculture should be fixed according to categories of IGAs.

### *2.2.11 Higher Service Charge for Members*

Generally, agriculture loan is provided to the small and marginal farmers, while Microenterprise (ME) loan is provided to the members who want to

expand or diversify their existing enterprises. According to the agriculture loan policy of PKSF, the lowest and the highest loan ceilings are 257.50 USD and 643.74 USD respectively. For microenterprise, the same are 386.25 USD and 12874.98 USD respectively. But members under both the programmes have to provide same rate of service charge. On the other hand, POs recollect the entire amount of agriculture loan ten to fifteen days ahead of the loan period. As a result, in terms of actual duration of loan, there is a risk of realising higher rate of service charge for the members.

### *2.2.12 Political Risk*

Political interference in agricultural market is a common feature in many of the developing countries including Bangladesh. Some political violence like hartal (shut down), vehicle strike, road blockade, etc. affect the market price. In that situation farmers do not get proper price of their commodities and it creates a risk during loan repayment stage.

### *2.2.13 Defalcation of Money by the Field Workers*

Generally, the size of agriculture loan is bigger than that of the normal loan and farmers have to repay the loan after certain period of time say six months. Some field workers accumulate a bigger amount of recovered loan at a time and there is a risk of defalcation of this loan.

## **3 Risks in Seasonal Credit and Its Causes**

Some of the risks in agriculture and seasonal credit disbursement are common because in some cases, both types of credit are disbursed in the same field. The difference between the two credits is that seasonal credit is disbursed for both agriculture and non agriculture activities, while the agriculture credit is disbursed to the small and medium farmers for agricultural activities only. According to the recent revised policy of PKSF, agriculture loan can be provided simultaneously with the normal loan. There seems to be some ambiguities in agriculture and seasonal loan disbursement policy. For example, when a loan is provided for cattle fattening before Eid-UI-Azha, it is considered as seasonal loan, but when the same loan is disbursed for cow rearing after Eid-UI-Azha, it is called agriculture loan. In this section, in addition to the risks mentioned for agriculture loan disbursement, some additional risks related to seasonal credit disbursement are mentioned.

### **3.1      *Death of Livestock***

Normally MFIs provide seasonal loan for cattle fattening and goat rearing before Eid-UI-Azah. But death of livestock creates some risks for MFIs. Main causes of death of livestock are different diseases like Anthrax, FMD (Foot and Mouth Diseases), etc.

### **3.2      *Provision of Parallel Loan with Normal Loan***

Seasonal loan is provided parallel to the Rural Microcredit (RMC) or Urban Microcredit (UMC). Therefore, farmers who receive seasonal loan have to carry on at least two loans at a time and most of the time MFIs find it risky to adjust the loans. If field workers cannot select the farmers properly, the problem becomes more acute. Some field workers reschedule the default borrowers' loan to show enhanced recovery rate. Whenever borrowers are unable to properly utilise both the loans simultaneously, MFIs do not get their money back timely. Therefore, parallel loan should be disbursed on the basis of borrower's ability to repay.

### **3.3      *Reduced Demand for Cattle after Eid-UI-Azha***

Cattle fattening is a seasonal business and its demand is very high during Eid-UI-Azah. But after Eid-UI-Azah cattle demand falls down. Farmers do not want to continue the cattle fattening business because, in this process sometimes, cattle are given some unauthorized medicine/hormone for quick growth. As such within certain period farmers have to sell their cattle, otherwise such cattle may die. Therefore, farmers are unwilling to continue this business all the year round and MFIs find risk in disbursing seasonal loan for cattle fattening after Eid-UI-Azah.

### **3.4      *Lack of Knowledge on Livestock Rearing***

Most of the time farmers keep cows in a small unhygienic place. There is sometimes risk of cow lifting. Therefore, stealing of livestock and different kinds of diseases like Tarka; Anthrax and FMD are the great risks in livestock business. Lack of knowledge and awareness of the farmers is the major cause behind this risk.

### **3.5      *Selling Cattle with the Assistance of Field Workers of MFIs***

Whenever MFIs provide seasonal credit on cattle fattening, they also take some responsibilities to sell the cattle in the market. During Eid-UI-Azha,

field workers help the members to sell the cattle and they stay at the market until the cattle is sold. Sometimes field workers have to stay 3 to 5 days in the market with the members without extra payment. Consequently, they cannot look after the Samity during those days. Although, it is not the MFIs' duty, but they do it to get their money back.

### **3.6      *Lack of Technical Support***

Farmers are not aware of modern technology. In most cases, they use traditional knowledge in cattle fattening and as such they earn less than their expectation. Therefore, MFIs' risk to get back loan on time increases due to lower return from the borrowers. If MFIs can provide technical expert on livestock to help farmers in knowledge sharing such as what type of calf is good for cattle fattening, what type of vaccine should be used for Anthrax or FMD diseases, what type of food should farmer feeds to their animals, etc., then they can earn more. This may help them return loan timely (From KIIs). The main causes against this risk are lack of support of livestock department to the farmers and lack of technical staff of MFIs to help the farmers.

### **3.7      *Other Important Risks***

Higher price of fodder, abundance of Indian cows during Eid-UI-Azha, political unrest, lack of market linkage, unavailability of veterinary services, lack of good quality calf, lack of vaccine of livestock, diseases of fish, etc., are the major risks of seasonal credit. The causes against these risks are as follows:

- i)          High cost of imported fodder.
- ii)        Lack of initiative to prevent import of Indian cows during Eid-UI-Azha.
- iii)       Political unrest like shutdown, blockade, etc. hampers normal flow of markets, supply of agricultural inputs, mobility of people, etc.
- iv)        Inadequate market linkage due to poor transport facilities, lack of market information and lack of co-operatives.
- v)         Lack of access to livestock related information from government livestock department.
- vi)        Lack of breeding farm is the main cause of lack of good calf.

## **4 Mitigation Strategies of Risks in Agricultural and Seasonal Credit**

### **4.1 Mitigation Strategies of Risks in Agricultural Credit**

Mitigation of agricultural risks is likely to result in increased agricultural productivity. This section attempts to suggest some strategies to overcome the risks identified in the previous sections.

#### **4.1.1 Control of Diversion of Fund**

In order to control diversion of fund, monitoring and counseling the borrowers should be strengthened to use the loan for their planned purpose and repay it timely.

#### **4.1.2 Creation of Conducive Environment for Loan Repayment**

Probable strategies are: (i) loan repayment schedule should be fixed on the basis of nature of activities. For short duration activities such as vegetable cultivation (like amaranth, bean, gourd, tomato, brinjal, etc.) loan may be repaid on three to six monthly installment. (ii) More counseling should be provided to the farmers to repay loan timely.

#### **4.1.3 Mitigation of Disaster Affects**

If crops are damaged by natural disaster, following flexibilities may be allowed to the farmers :

- i) Provide disaster loan to the farmers
- ii) Introduce crop insurance facilities to the farmers
- iii) Provide good quality seed and organic fertilizer to the farmers through proper training and supervision
- iv) Ensure continuous supply of electricity during irrigation period
- v) Create awareness among the farmers regarding the mitigation of man-made disaster through training, counseling, and motivation through print and electronic media.
- vi) Provide flood, draught, salinity, water logged, hailstorm resistant variety of rice.

- vii) Build brick field in the fallow land instead of paddy growing land and discharge industrial wastage after recycling.
- viii) Dredging river every year so that supply of water is not hampered during irrigation period.
- ix) Strengthen weather forecasting system of climate situation and deliver forecasting results properly to the farmers.

#### *4.1.4 Ensure Proper Price of Produced Items*

Strategies for ensuring proper prices of the produced items are mentioned below:

- i) Reschedule the loan repayment time for the farmers in case of necessity so that they can sell their products at a higher price.
- ii) Build some cold storage to preserve produced crops.
- iii) Farmers should grow commodities which are locally demanded.
- iv) Farmers should grow off-seasoned vegetables like tomato in summer season so that they can get higher price.
- v) Farmers' cooperatives should be formed and their produced crops should be sold through the co-operatives.
- vi) Government should take initiative to restrict easily accessibility of Indian agricultural commodities by imposing higher tax.
- vii) Food-packaging system should be improved to ensure higher prices of commodities.
- viii) Road and transport facilities should be improved.
- ix) Government's fixed price should be higher than the production cost of commodities so that farmers do not incur loss.
- x) Emphasis should be given on agro-processing along with their marketing.

#### *4.1.5 Control of Defalcation of Money by the Field Workers*

To overcome this risk, the following strategies may be adopted:



- i) Strengthen monitoring of loan collection and deposit by the field workers
- ii) Provide reasonable remuneration to the field workers
- iii) Motivate field workers through counseling to deposit collected loan on time.
- iv) Use mobile banking system during financial transactions.

#### *4.1.6 Ensure Quantity and Quality of Agriculture Inputs*

To ensure quantity and quality of agriculture inputs following strategies may be adopted:

- i) Department of Agriculture Extension (DAE), Department of Livestock (DLS) and Department of Fisheries (DoF) may be requested to ensure quantity and quality of agricultural inputs such as seeds, fertilizer, vaccine; insecticide, etc. Moreover, PKSf through its POs may supply good quality agricultural inputs to the farmers.
- ii) Farmers should be trained on good quality seed production and compost preparation by the POs. Attempt should also be made to establish seed production center by government and non-government organizations at Upazila level.
- iii) Farmers should use seed certified by Bangladesh Seed Certification Agency (BSCA).
- iv) For agricultural inputs delivery to the farmers a card system should be strictly followed.

#### *4.1.7 Provide Technical Support to the Farmers*

The following technical support should be provided to the farmers:

- i) MFIs need to recruit Agriculturists to provide technical support to the farmers.
- ii) Sub-Assistant Agriculture Officer of Department of Agriculture Extension (DAE) should disseminate modern technologies on agriculture more frequently and effectively to the farmers.

iii) There must be a position of agriculture specialist in MFIs which provide agriculture loan.

iv) Impart training to the farmers on both modern cultivation process and use of agricultural inputs.

#### *4.1.8 Ensure Effective Use of Loan*

To ensure effective use of loan following strategies may be adopted:

i) MFIs should strengthen its monitoring and supervision activities so that farmers can utilise their loan in productive areas.

ii) Provide loan to the farmers through their need assessment. Field staff should properly assess the feasibility of farmer's loan proposal before disbursing loan.

#### *4.1.9 Making Fund Available on Time*

In order to make fund available to the MFIs on time, PKSf should provide agricultural loan to the POs at least fifteen days ahead of the crop season, so that POs can disburse loan to the farmers on time.

#### *4.1.10 Revise Loan Ceiling*

Loan ceiling needs to be revised for some agricultural activities like cow rearing, beef fattening, fish farming, etc. on the basis of the need assessment.

#### *4.1.11 Increase Contact with the Borrowers*

Increased contact with the borrowers should be ensured through enhanced monitoring and supervision systems, counseling and ensuring regular attendance of the borrowers in the weekly group meetings.

#### *4.1.12 Revise Service Charge for Agriculture Loan*

In the most cases, before ending the last date of loan duration, POs collect the entire loan with total service charge which actually increases the overall service charge of agriculture loan. Therefore, service charge can be collected on the basis of actual duration of lending time.

## **4.2 Mitigation Strategies of Risks in Seasonal Credit**

This section includes mitigation strategies of risks of seasonal credit. The important mitigation strategies are control of death of livestock, ensuring effective use of parallel loans, less amount of loan disbursement after Eid-UI-Azha, profit maximization and like. Details are given below:

### **4.2.1 Control of Death of Livestock**

POs need to engage veterinary doctor to provide support to the participant households. In this regard, a veterinary doctor may be recruited by the POs on a fulltime or part time basis. Moreover, POs need to introduce and expand livestock insurance for the participant households.

### **4.2.2 Ensuring Effective Use of Parallel Loans**

In order to ensure effective use of parallel loans, participant households should be properly targeted. Moreover, proper monitoring and supervision of utilisation of loan in productive sector should be ensured. Furthermore, a gap of at least fifteen days between taking new loan and repayment of previous loan should be ensured so that a household would not be able to utilise current loan to repay previous loan.

### **4.2.3 Disbursement of Less Amount of Loan after Eid –UI – Azha**

Since the demand of cattle drastically reduced after Eid-UI-Azha, cattle fattening loan should not be provided in a large scale after Eid-UI-Azha.

### **4.2.4 Providing Support to the Participant Households to Sell their Livestock**

If MFIs extend their support to the participant households to sell their livestock, both participant households and MFIs will be benefited. Field workers of MFIs should help in selecting appropriate market for selling the livestock. This will maximize the profit of the participant households and at the same time MFIs will be able to recover due loan on time.

### **4.2.5 Others Strategies**

In addition to the above, mitigation strategies of other problems are stated below:

- i) The imported food for livestock is very much costly for the farmers. In order to minimize the cost, tax may be reduced by the government and such types of food should be produced in our own country.
- ii) To prevent unrestricted flow of Indian cow in our market, more tax may be introduced on such cows.
- iii) At least one veterinary doctor needs to be engaged in each union.
- iv) At least one artificial insemination center for livestock must be established in each union. At present one artificial insemination center for livestock is available at each Upazila.
- v) Provide intensive training to the farmers on livestock rearing.
- vi) Provision of poultry vaccine at union level should be ensured.
- vii) Disseminate modern technologies on fish farming to the farmers along with appropriate training and demonstration.

## **5 Conclusions and Recommendations**

### **5.1 Conclusions**

There are a lot of risks in agriculture and seasonal credit disbursement, which hinder microcredit operation (Fig.2). The most important risk is natural disaster, which includes flood, cyclone, excess rainfall, drought, and hailstorm. Besides, there are other risks like lack of electricity, lack of labour supply during the harvesting period, etc. Unwillingness to repay loan installment is another risk that occurs mainly due to use of money for household consumption after selling borrowers' crops. Moreover, lack of technical support and training to members creates another risk. This is occurring mainly due to lack of technical persons, lack of modern agriculture knowledge of farmers, etc. Furthermore, other types of risk are lack of agriculture inputs both in quantity and quality, defalcation of money by the field workers and members, lack of sufficient loan, diversion of loan in unproductive sector, providing multiple loans, political instability lower price of farmers produce, higher service charge, uncertainty of loan on time, etc. Some of the risks identified in agriculture credit disbursement like disaster, lack of technical supports, unwillingness to repay loan, political risk, risk of providing parallel loans, risk of higher service charge and lack of quantity

and quality of agriculture inputs are also same for seasonal credit disbursement. Death of livestock, lack of knowledge on livestock rearing, reduced demand of cattle after Eid-UI-Azha and involvement of POs staff with the members for selling their products are few other risks in seasonal credit disbursement.

## **5.2 Recommendations**

In order to mitigate the risks in agriculture and seasonal credit disbursement, the following strategies may be considered:

### **5.2.1 Introduction of Crop and Livestock Insurance**

One of the most important risks of agriculture and seasonal credit disbursement is natural disaster, which cannot be controlled by human being. It affects farmers' ability to repay loan. In order to cope with such crisis, crop and livestock insurance may be introduced.

### **5.2.2 Creation of Agriculture Specialist Position in MFIs**

Lack of technical support and training is another risk in agriculture and seasonal credit disbursement. To address such type of risks sustainably, MFIs can create permanent position for agriculturist to provide technical support to the farmers and train them on both modern cultivation process and use of modern agricultural inputs.

### **5.2.3 Ensuring Proper Price of Produced Items**

Another important risk in agriculture and seasonal credit disbursement is lower price of produced items during the harvesting period. In this regard, loan repayment time for the farmers may be extended in selected crops, so that they can sell their products at higher price. On the other hand, MFIs can construct some cold storages to preserve produced crops and sell these later at a higher price. In this regard, PKSf can provide loan to its POs for constructing cold storage.

### **5.2.4 Strengthening Monitoring and Supervision of Loan Utilization**

According to the agriculture loan policy of PKSf, a farmer can receive maximum amount of 643.75 USD for two loans in a particular year. Some farmers take two loans but cannot use these effectively. Hence, loan should

be provided to the farmers based on their utilization capacity. To ensure effective utilization of loan, MFIs should strengthen their monitoring and supervision activities particularly at field level, so that farmers can utilize their loan in productive areas and repay loan timely.

#### *5.2.5 Determination of Loan Ceiling According to Nature of Economic Activities and Timely Disbursement*

According to agriculture loan policy of PKSF, any borrower can take this loan for various agriculture based IGAs, but the 1st loan ceiling of 257.50 USD is fixed for all kinds of IGAs. But different IGAs need different amount of initial capital. In this case, loan ceiling should be flexible for different types of agricultural activities like cattle fattening, fish farming, etc. on the basis of individual needs. Besides, agricultural or seasonal loan should be provided on time so that it can be utilized appropriately.

#### *5.2.6 Collection of Service Charge on the Basis of Actual Duration of Loan*

Agriculture and seasonal loans need to be repaid within the loan period. In some cases, loans are realized before scheduled time, which increases the overall service charge on loan. Therefore, provision should be made to collect service charge on the basis of actual duration of loan. This system will encourage borrowers to repay loan as early as possible.

#### *5.2.7 Execution of Repayment Flexibilities*

It is already mentioned in the agriculture and seasonal loan policy of PKSF that participants can repay their seasonal loan on weekly/fortnightly/monthly basis or single installment. In reality, it is not duly implemented at the field level, where both seasonal and agriculture loans are repaid by one installment. Flexibilities offered by the PKSF to the POs in loan repayment schedule need to be executed properly depending on the nature of crop.

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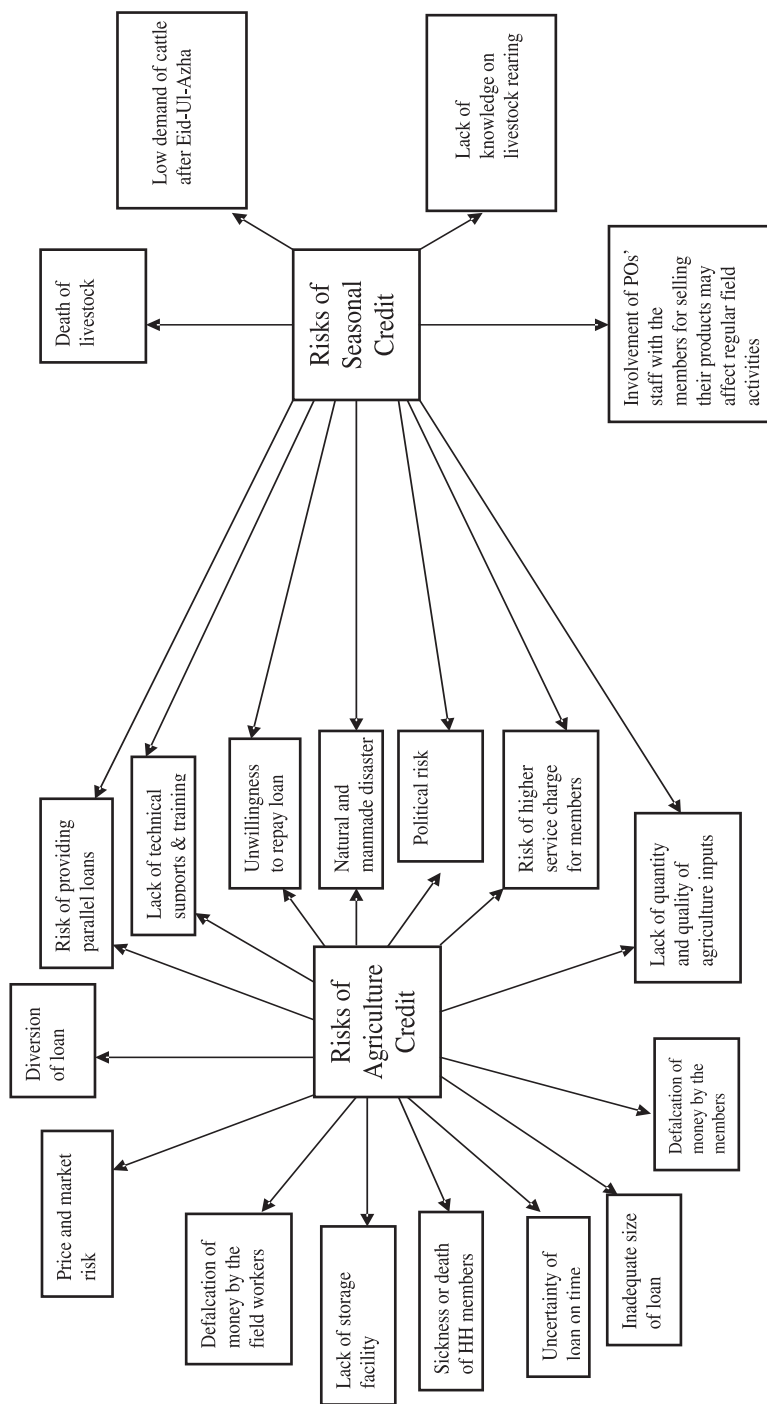
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## LIST OF ABBREVIATIONS

ASM	:	Agriculture Sector Microcredit
ESDO	:	Eco Social Development Organisation
FGDs	:	Focus Group Discussions
FMD	:	Foot and Mouth Diseases
FY	:	Financial Year
GUK	:	Gram Unnayan Karma
IFMR	:	Institute for Financial Management and Research
InM	:	Institute of Microfinance
JCF	:	Jagorani Chakra Foundation
KIIs	:	Key Informants Interview
MFI	:	Microfinance Institutions
PKSF	:	Palli Karma-Sahayak Foundation
PO	:	Partner Organization
PPSS	:	Palli Pragati Sahayak Samity
RRF	:	Rural Reconstruction Foundation
SDI	:	Society for Development Initiatives
SL	:	Seasonal Loan
SSS	:	Society for Social Services
TMSS	:	Thengamara Mohila Sabuj Sangha
VERC	:	Village Education Resource Centre



**Fig. 1 : The Schematic Diagram of Risks in Agricultural and Seasonal Credit**

**Source:** FGDs and KIs at field level, 2014



**Table 1 :** Disbursement of Agriculture and Seasonal Loan of PKSF to Its POs  
(Million USD)

Financial year	Agriculture loan	Seasonal loan	Total
2008-09	11.52	24.54	36.07
2009-10	23.40	46.98	70.38
2010-11	24.83	56.16	80.99
2011-12	36.25	74.77	111.02
2012-13	45.30	76.23	121.53
2013-14	42.99	94.05	137.04

**Source :** ASM and SL cell of PKSF, 2014

**Table 2 :** List of Selected POs of PKSF for Conducting Key Informant Interviews(KIIs)

Sl. No.	Category	Name of Selected POs
1	L	Society for Social Services (SSS)
2	L	Thengamara Mohila Sabuj Sangha (TMSS)
3	L	Jagorani Chakra Foundation (JCF)
4	L	Rural Reconstruction Foundation (RRF)
5	M	Nowabaki Ganomukhi Foundation (NGF)
6	M	Eco Social Development Organisation (ESDO)
7	M	Village Education Resource Centre (VERC)
8	M	Gram Unnayan Karma (GUK)
9	S	Palli Pragati Sahayak Samity (PPSS)
10	S	Shamaj O Jati Gathan (SHOJAG)
11	S	Gashful
12	S	Society for Development Initiatives (SDI)

**Note :** L=Large, M=Medium and S=Small